

The Samsung logo, consisting of the word "SAMSUNG" in white capital letters inside a black oval.

PROJECTION LCD TELEVISION

SP403JHA

Owner's Instructions

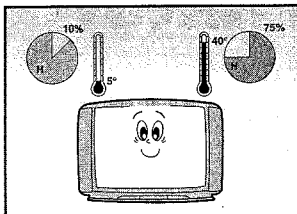
Before operating the unit,
please read this manual thoroughly,
and retain it for future reference.

TELETEXT
AV-LINK 

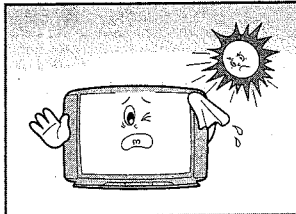
 **DOLBY SURROUND**
PRO • LOGIC

Safety Instructions

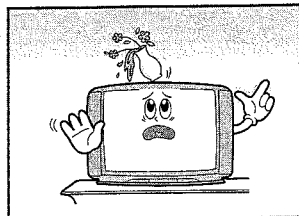
These illustrations represent precautions concerning your television.



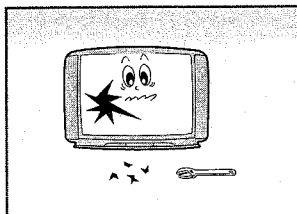
Do NOT expose the television to extreme temperature conditions (below 5°C and above 40°C) or to extreme humidity conditions (less than 10% and more than 75%).



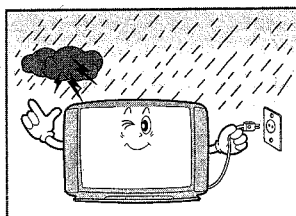
Do NOT expose the television to direct sunlight.



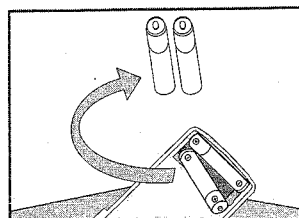
Do NOT expose the television to any liquids.



If the television is broken, do not try to repair it yourself. Contact qualified service personnel.



During storm conditions (especially when there is lightning) unplug the television from the mains socket and aerial.



If the remote control is not used for a long period of time, remove the batteries and store it in a cool, dry place.

THIS DEVICE IS NOT FOR USE IN INDUSTRIAL ENVIRONMENTS

Caution

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE REAR COVER: NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		

Mains voltage: 220-240V~, 50Hz.

Model Name: _____
 Serial Number: _____
 Date of Purchase: _____

Beware of high voltage. Live parts are accessible when the rear cover is removed. Do not remove the rear cover.

The lightning bolt framed by a triangle is a warning sign which alerts you to dangerous voltage inside the product.



The exclamation point framed by a triangle is a warning sign which alerts you to important instructions concerning this product.





*Thank you for buying
a SAMSUNG television.*

*Please take the time to read these
instructions, as they will help you to
operate your television with ease.*

GB

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Symbols



Press



Push



Hold down



Important



Note

Your New Wide Screen Television

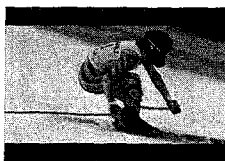
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You have just purchased a television with new state of the art features including 16:9 Wide Screen format. A 16:9 screen (ratio of 16 wide to 9 high) provides approximately 1/3 more viewing space.

In order to take full advantage of your television's wider viewing area you should sit at the correct distance from the television (see the following page).



Picture in original 16:9 Wide Screen broadcasting format



Same picture on a traditional 4:3 television



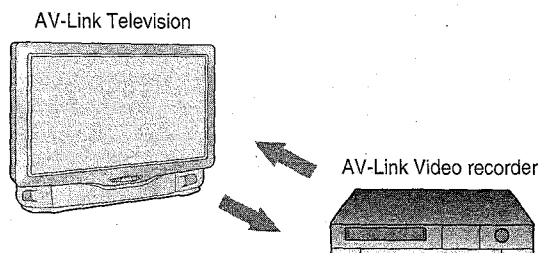
Traditional 4:3 picture on a 16:9 screen



Same picture with the Panorama effect

New AV-Link Feature

Your television is equipped with the AV-Link feature to enable the data received on your television to be directly transferred to your VCR, provided that your VCR is also equipped with the AV-Link feature. Thus, both devices can exchange information like timer programming or channel information.



With the WYSIWYR (What You See Is What You Record) principle, you can start recording on your VCR a programme that you are currently watching on your TV, simply by pressing the AV-Link Record (•) button on the remote control. (For more details, refer to page 42.)

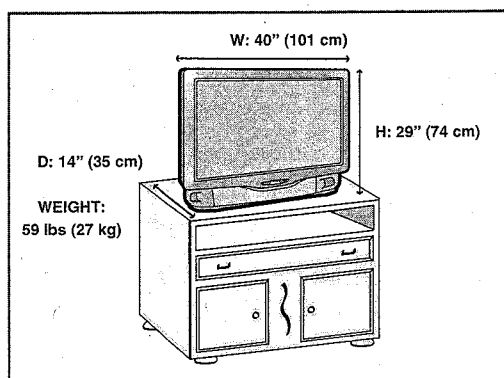
Example: *If you have selected programme 3 on your TV, this programme number is sent to the VCR and the VCR starts recording the corresponding broadcast on its own tuner.*

Deciding Where to Locate Your Television

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Various factors must be taken into account when deciding where to locate your television:

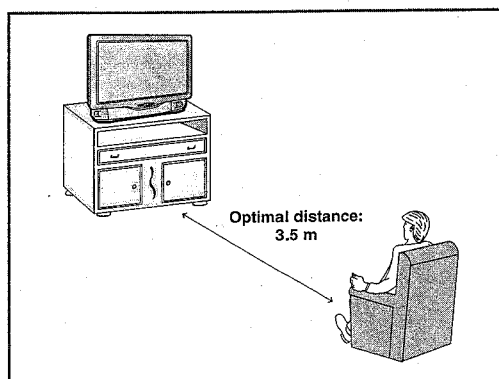
- ◆ *Its dimensions and weight*
- ◆ *The optimal viewing distance*



Your television:

- ◆ Measures approximately 29" x 40" x 14" - 74 x 101 x 35 cm (H x W x D)
- ◆ Weighs approximately 59 lbs, that is 27 kg

Choose a cabinet that is sufficiently large, stable and robust.



To take full advantage of the picture quality of your screen, you must be sitting at an optimal distance of 3.5 metres (3.5 times the screen size).

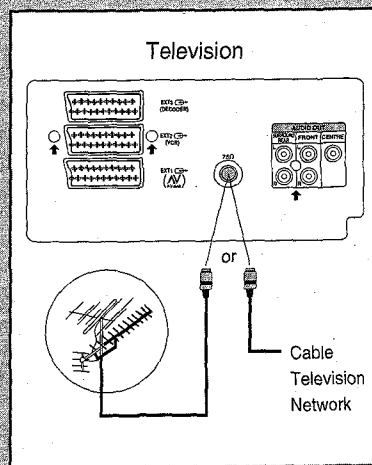
Connecting to an Aerial or Cable Television Network

To view television channels correctly, a signal must be received by the set from one of the following sources:

- ◆ An outdoor aerial
- ◆ An indoor aerial
- ◆ A cable television network
- ◆ A satellite network (see page 8 for further details)

- 1 In the first three cases, connect the aerial or network input cable to the 75Ω coaxial socket on the rear of the television.
- 2 If you are using an indoor aerial, you may need to turn it when tuning your television until you obtain a picture that is both sharp and clear.
For further details, refer to:
 - ◆ "Automatic Storing of Channels" on page 14
 - ◆ "Manual Storing of Channels" on page 16

➤ If you wish to subscribe to a cable network, contact your local dealer.



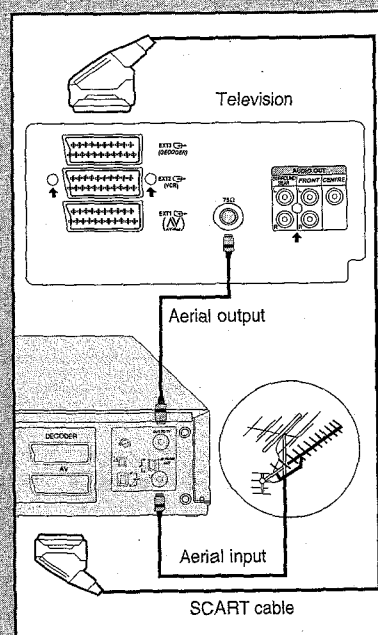
Connecting a non-AV-Link VCR

You can connect a VCR to the television using a:

- ◆ Coaxial cable
- ◆ SCART cable
- ◆ S-Video cable (see page 47 for further details)

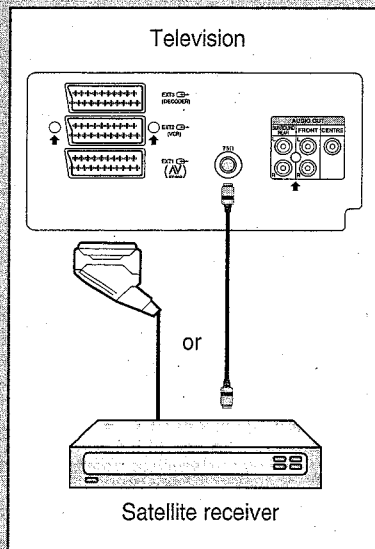
- 1 Plug the aerial input cable into the appropriate socket on the VCR.
- 2 Connect a coaxial cable to the:
 - ◆ VCR aerial output socket
 - ◆ Television aerial input socket
- 3 To obtain better picture quality and, in addition, simplify the setting up procedure of the VCR, you can connect a SCART cable between:
 - ◆ The AV (SCART) socket on the VCR
 - and
 - ◆ A SCART socket on the rear of the television (see page 44 for further details on the various connection possibilities)

➤ It is recommended that you use the Ext 2 connector when connecting VCR for clearer picture.
- 4 Follow the instructions supplied with your VCR to tune the VCR to your television.



Connecting a Satellite Receiver

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In order to watch television programmes broadcast via a satellite network, you must connect a satellite receiver to the TV set.



If you wish to connect both a satellite receiver and a VCR, you should connect the:

- ◆ Receiver to the VCR
 - ◆ VCR to the television (see page 7 for further details)
- Otherwise, connect the receiver directly to the television.

Using a SCART cable

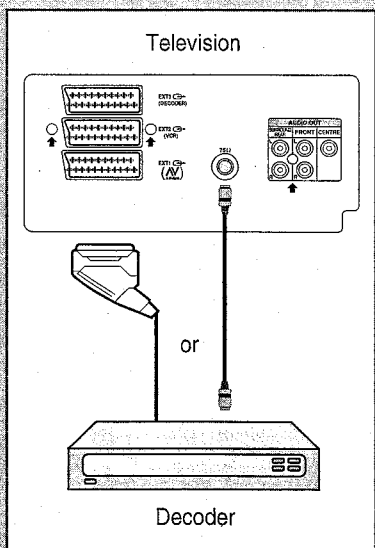
Connect the receiver SCART cable to one of the SCART connectors on the rear of the television (see page 44 for further details on the various connection possibilities).

Using a coaxial cable

Connect a coaxial cable to the:

- ◆ Receiver output socket.
- ◆ Television aerial input socket.

Connecting a Decoder



In order to descramble a coded transmission signal, you must connect a decoder to the TV set.



If you wish to connect both a decoder and a VCR, you should connect the:

- ◆ Decoder to the VCR
 - ◆ VCR to the television (see page 7 for further details)
- Otherwise, connect the decoder directly to the television.

Using a SCART cable

Connect the receiver SCART cable to one of the SCART connectors on the rear of the television (see page 44 for further details on the various connection possibilities).

Using a coaxial cable

Connect a coaxial cable to the:

- ◆ Receiver output socket.
- ◆ Television aerial input socket.

Inserting the Batteries in the Remote Control

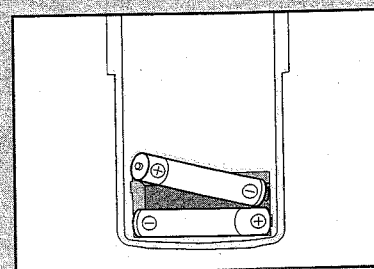
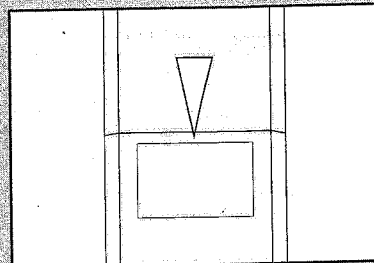
GB

You must insert or replace the batteries in the remote control when you:

- ◆ Purchase the television
- ◆ Find that the remote control is no longer operating correctly

- 1 Remove the cover on the rear of the remote control by pushing it downwards and then pulling firmly to remove it.
- 2 Insert two R03, UM4, "AAA" 1.5V or equivalent batteries taking care to respect the polarities:
 - ◆ + on the battery against + on the remote control
 - ◆ - on the battery against - on the remote control
- 3 Replace the cover by aligning it with the base of the remote control and pushing it back into place.

➤ Do not mix battery types, i.e. alkaline and manganese.



Switching Your Television On and Off

The mains lead is attached to the rear of your television.



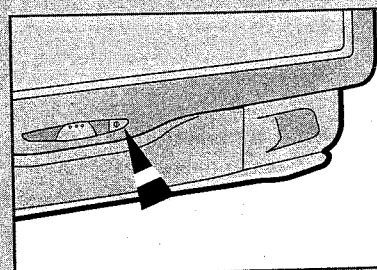
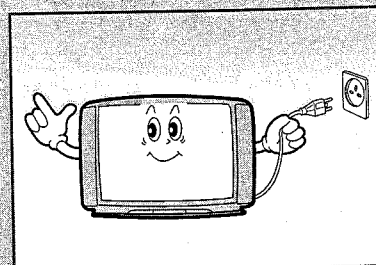
If you have purchased this television in the United Kingdom, refer to page 49 for further instructions on plug wiring.

- 1 Plug the mains lead into an appropriate socket.
 - Use a wall socket with a voltage of between 220 and 240 Volts and a frequency of 50 Hz.
- 2 Press the ON/OFF button (⏻) on the front of the television.

Result: The red Standby/Temp indicator lights up on the front panel.
- 3 Press the POWER button (⏻) on the remote control to switch the television on.

Result: The programme that you were watching last is re-selected automatically.

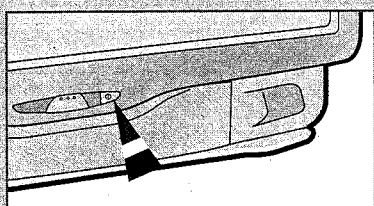
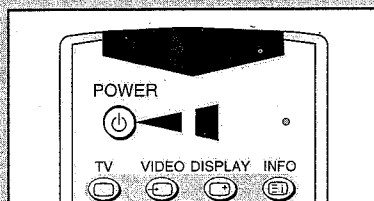
 - When you switch the television on for the very first time, you have to choose the language in which the menus are to be displayed (see page 13).
- 4 To switch your television off, press the ON/OFF button (⏻) again.



➤ It takes about 25 seconds for the TV to warm up, so the picture may not appear immediately.

Placing Your Television in Standby Mode

GB



Your television can be placed in Standby mode, in order to reduce:

- ◆ Power consumption
- ◆ Wear of the lamp

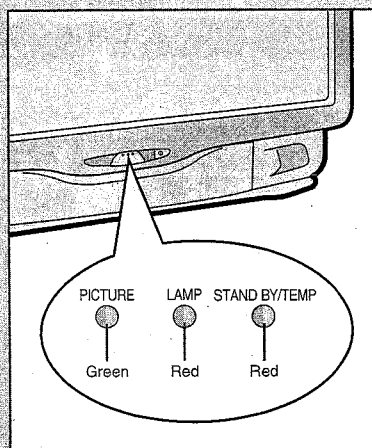
The Standby mode can be useful when you wish to interrupt viewing temporarily (during a meal, for example).

- 1 Press the POWER button (⏻) on the remote control.
Result: The screen is turned off and a red Standby indicator appears on the front of the television.
- 2 To switch the television back on, simply press the POWER button (⏻) again or a number button.

➤ Do not leave your television in Standby mode for long periods of time (when you are away on holiday, for example). Turn your television off by pressing the ON/OFF button (⏻) on the front of the set. It is best to unplug the set from the mains and aerial.

LED Indicators

(●:On, ◐:Blinking, ○:Off)



PICTURE	LAMP	STAND BY/TEMP	
○	○	●	Standby mode
●	●	○	Normal operation
◐	● or ◐	○	Lamp is warming up. The normal picture comes on after 25 seconds.
○	◐	◐	Air vent cover in the rear of the TV is not properly installed.
○	○	◐	Inside temperature of the TV is over normal. Clean the air vent cover in the rear of the TV. Turn the TV back on after 1 hour. (See below "Temperature")
◐	◐	◐	The lamp does not work, please contact an authorized Samsung Service Center for assistance.

➤ Temperature

When the inside temperature of the TV becomes too high, the TV set is automatically turned off. You will observe the following.

1. "STAND BY/TEMP" LED is blinking for about 5~6 seconds.
2. The picture is turned to blue screen and "TEMPERATURE" character blinks for about 5~6 seconds.
3. The power is turned off and the "STAND BY/TEMP" LED is blinking for about 20 seconds.

👉 This is not a TV set failure and normal operation.

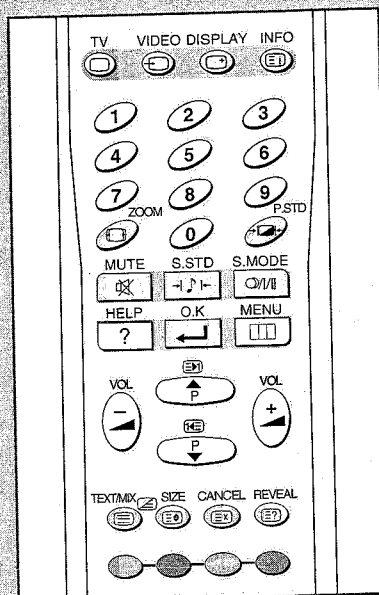
Becoming Familiar with the Remote Control

The remote control is used mainly to:

- ◆ Change channels and adjust the volume
- ◆ Set up the television using the on-screen menu system

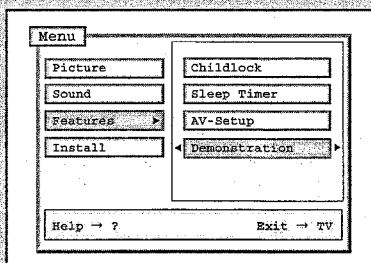
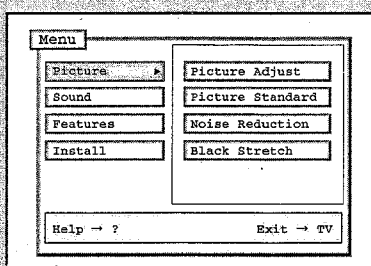
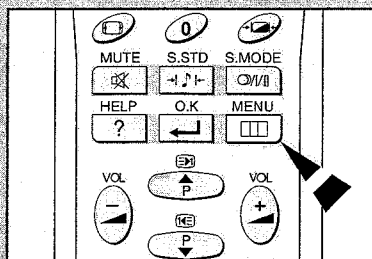
The following table presents the most frequently used buttons and their functions.

Button	Viewing Function	Menu Function
P ▲	Used to display the next stored channel.	Used to select the previous menu option.
P ▼	Used to display the previous stored channel.	Used to select the next menu option.
+ ▲	Used to increase the volume.	Used to: ◆ Display a submenu containing selections for the current menu option ◆ Search forwards manually for channels ◆ Increase a menu option value
- ▼	Used to reduce the volume.	Used to: ◆ Display a submenu containing selections for the current menu option ◆ Search backwards manually for channels ◆ Reduce a menu option value
MENU (□□□)	Used to display the on-screen menu system.	Used to return to the previous menu or normal viewing.
HELP (?)	Used to display general help information.	Used to display help information about the menu system and how to move from option to option.
0 to 9	Used to display the corresponding channels.	Used to display the corresponding channel directly.
TV (□)	Used to switch the television on when it is in Standby mode.	Used to exit the menu system and return to normal viewing directly.



Viewing the Demonstration

GB



To become familiar with the various menus provided by your television, you can view the inbuilt demonstration.

- 1 If the television is in Standby mode (red light only visible on the television front panel), press the POWER button (⏻) on the remote control.

- 2 Press the MENU button (⏻).

Result: The main menu is displayed.

- 3 Press the P ▼ or P ▲ buttons one or more times until the Features box is selected.

Result: The options available in the Features group are displayed in the right-hand part of the menu.

- 4 Press the + ◀ button.

Result: The first option is selected.

- 5 Press the P ▼ or P ▲ buttons one or more times to highlight the Demonstration option. Press the + ◀ button to select

Result: The Welcome to the World of Samsung Electronics message is displayed and each of the menu options is displayed in turn.

- 6 When you wish to stop the demonstration, press any button on the remote control except for POWER.

Result: The main menu is displayed.

Choosing Your Language

When you start using your television for the first time, you must select the language which will be used for displaying menus and indications.

You can choose between eight different languages:

- ◆ English
- ◆ German
- ◆ French
- ◆ Spanish
- ◆ Italian
- ◆ Dutch
- ◆ Portuguese
- ◆ Swedish

1 If the television is in Standby mode (red light only visible on the television front panel), press the POWER button (⏻) on the remote control.

2 Press the MENU button (□□□).

Result: The main menu is displayed.

3 Press the P ▼ or P ▲ buttons one or more times until the Install box is selected.

Result: The options available in the Install group are displayed in the right-hand part of the menu.

4 Press the + ▲ button.

Result: The Language option is selected.

5 Press the + ▲ button.

Result: The languages available are listed.

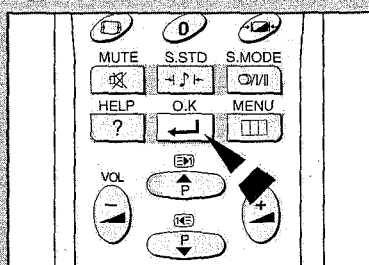
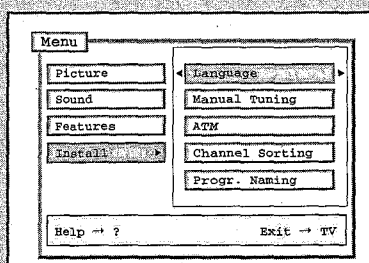
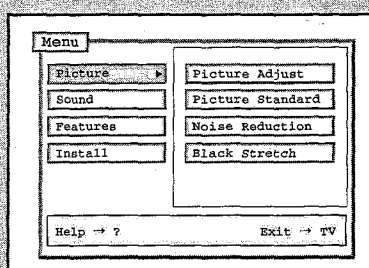
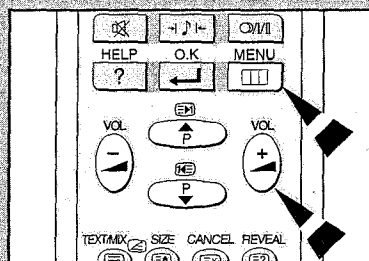
6 Press the P ▼ or P ▲ buttons one or more times until the appropriate language is highlighted (English, Deutsch, Français, Español, Italiano, Nederlands, Portugues, Svenska).

7 Press the O.K button (↵) to confirm your choice.

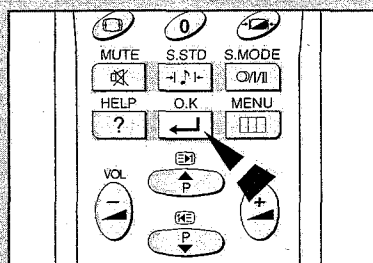
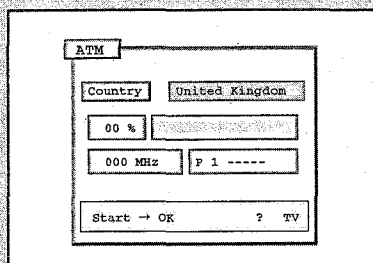
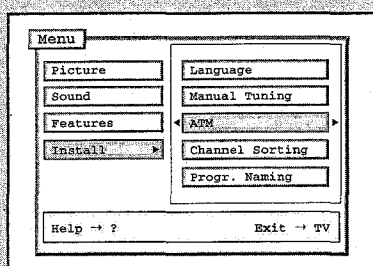
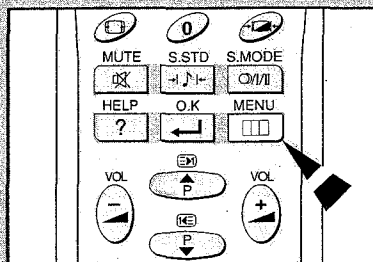
Result: Stored is displayed briefly at the bottom of the menu.

8 When you are satisfied with your choice, press the TV button (□) to return to normal viewing.

GB



Automatic Storing of Channels



You can scan for the frequency ranges available to you, (availability depends on your country). Automatically allocated programme numbers may not correspond to actual or desired programme numbers. However you can sort numbers manually and clear any channels you do not wish to watch (see page 15 for further details).

1 If the television is in Standby mode (red light only visible on the television front panel), press the POWER button (⏻) on the remote control.

2 Press the MENU button (☐).

Result: The main menu is displayed.

3 Press the P ▼ or P ▲ buttons one or more times to highlight the Install box. Press the + ▴ button to select.

Result: The options available in the Install group are displayed in the right-hand part of the menu.

4 Press the P ▼ or P ▲ buttons one or more times until the ATM (Automatic Tuning Management) option is selected.

5 Press the + ▴ button.

Result: The ATM menu is displayed.

6 Press the + ▴ button to select your country. The following countries are available: Belgie - Deutschland - United Kingdom - España - France - Italia - Nederland - Portugal - Schweiz - Sverige - Others.

➤ If you have selected the Others option but do not wish to scan the PAL frequency range, store the channels manually (see page 16).

7 Press the O.K. button (←) to start the search.

➤ To stop the search before it has finished, press the TV button (⏻).

➤ TV works in wide mode in ATM and Manual Tuning mode.

Result: The search will end automatically. Channels are sorted and stored in an order which reflects their position in the frequency range, (with lowest first and highest last). The programme originally selected is then displayed.

8 When the channels have been stored, you can:

- ◆ Sort them in the order required (see page 15)
- ◆ Clear a channel (see page 15)
- ◆ Assign a name to the stored channels (see page 18)
- ◆ Change channels (see page 19)
- ◆ Fine-tune channel reception if necessary (see page 20)
- ◆ Activate/deactivate the Black Stretch and Noise Reduction features (see pages 20 and 21 respectively)

GB

1 If the television is in Standby mode (red light only visible on the television front panel), press the POWER button (⏻) on the remote control.

- Result:** The main menu is displayed.

4 Press the P ▼ or P ▲ buttons one or more times until the **Channel Sorting** option is selected.

- Result: The Channel Sorting menu is displayed.

- 6** Press the **P ▼** or **P ▲** buttons one or more times to select the channel that you wish to move or delete.

- Move the channel to a new button and go to Step 8.

Delete the channel + button followed by the red button.

Result: The channel is cleared and all other channels are shifted accordingly.

- You can reinstate a deleted channel by pressing the green button at this stage.

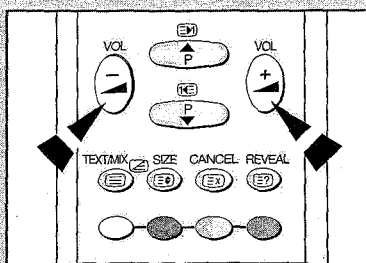
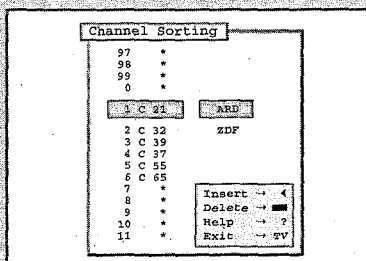
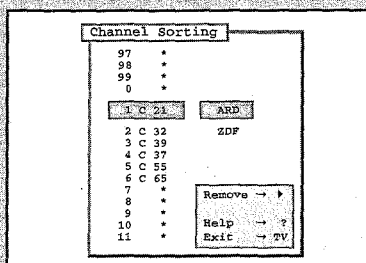
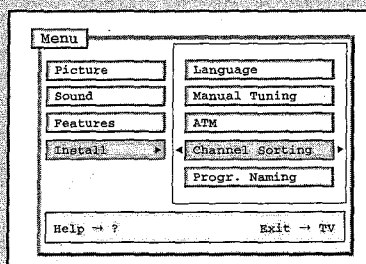
- 8** Press the P ▼ or P ▲ buttons to select the number of the programme to which the channel is to be moved.

- 9** Press the - button to confirm the move.

Result: The channel is moved to its new position and all other channels are shifted accordingly.

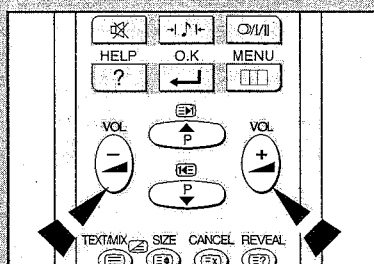
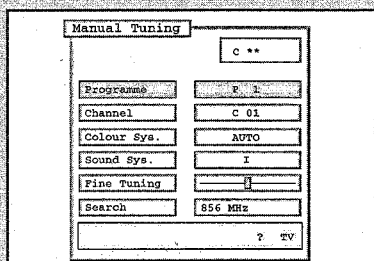
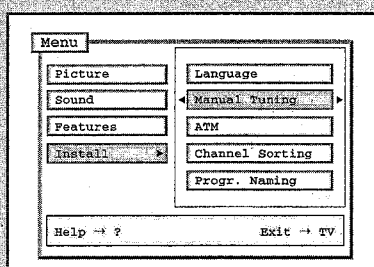
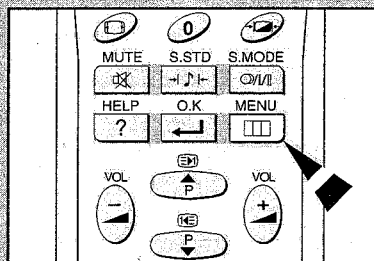
- You can undo a channel move and return the channel to its original position by pressing the green button at this stage.

- 10.** Repeat Steps 6 to 9 until you have cleared and/or moved all the channels to the required programme numbers.



Manual Storing of Channels

GB



You can store up to 100 television channels, including those received via cable networks.

When storing channels manually, you can choose:

- ◆ Whether or not to store each of the channels found
- ◆ The programme number by which you wish to identify each stored channel

1 If the television is in Standby mode (red light only visible on the television front panel), press the POWER button (⏻) on the remote control.

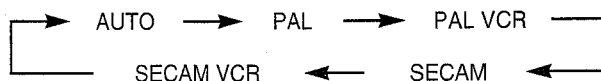
2 Press the MENU button (□).
Result: The main menu is displayed.

3 Press the P ▼ or P ▲ buttons one or more times to highlight the Install box. Press the + ▴ button to select.
Result: The options available in the Install group are displayed in the right-hand part of the menu.

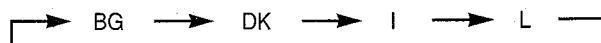
4 Press the P ▼ or P ▲ buttons one or more times, until the Manual Tuning option is selected.

5 Press the + ▴ button.
Result: The Manual Tuning menu is displayed.

6 If necessary, indicate the broadcasting standard required by pressing the P ▼ or P ▲ buttons to select the Colour Sys. option, followed by the + ▴ button one or more times. The standards are displayed in the following order: (Refer to page 51 for details.)



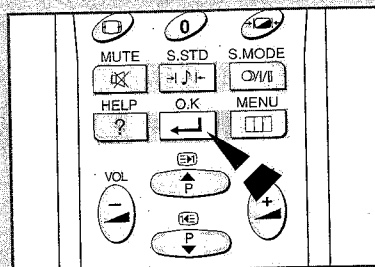
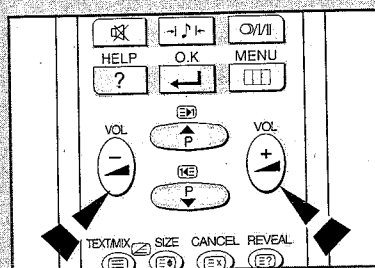
7 Select the Sound Sys. option by pressing P ▼ or P ▲ and press the + ▴ button one or more times. The sound standards are displayed in the following order: (Refer to page 51 for details.)



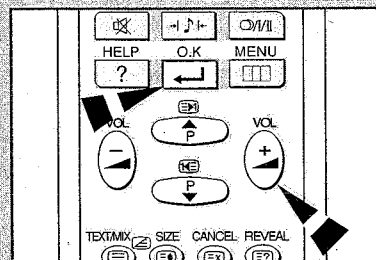
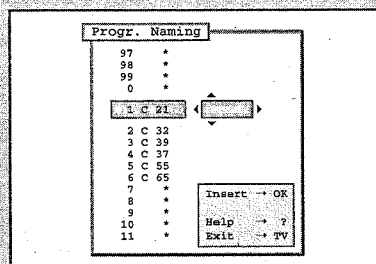
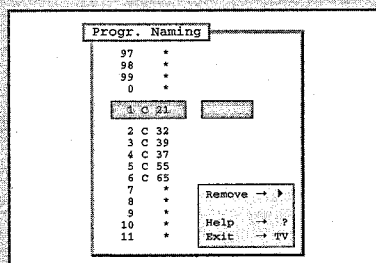
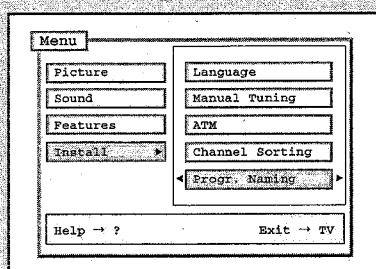
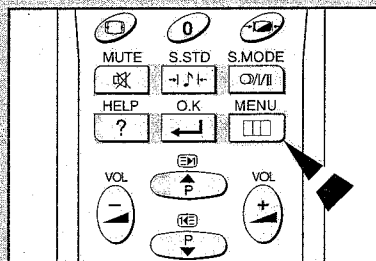
Manual Storing of Channels (cont.)

GB

- 8** If you... Then press the...
- Know the number of the channel to be stored
- ◆ P ▼ to select the **Channel** option
 - ◆ + ▲ or - ▼ buttons to indicate the required number
- Do not know the channel numbers
- ◆ P ▼ to select the **Search** option
 - ◆ + ▲ to start the search
- Result:** The tuner scans the frequency range until the first channel or the channel that you selected is received on your screen.
- 9** You can fine-tune reception by:
- ◆ Selecting the **Fine Tuning** option
 - ◆ Pressing the + ▲ or - ▼ buttons until the picture and sound are both clear and sharp
- 10** To assign a programme number to a channel, select the **Programme** option. Press the + ▲ or - ▼ buttons until you find the correct number.
- 11** To store the channel and associated programme number, press the O.K button (↵).
- Result:** **Stored** is displayed briefly at the bottom of your screen.
- 12** Repeat Steps 8 to 11 for each channel to be stored.



Assigning Names to Channels



Channel names will be assigned automatically when channel information is broadcast. These names can be changed, allowing you to assign new names.

- 1 If the television is in Standby mode (red light only visible on the television front panel), press the POWER button (⏻) on the remote control.
- 2 Press the MENU button (≡).
Result: The main menu is displayed.
- 3 Press the P ▼ or P ▲ buttons one or more times to highlight the **Install** box. Press the + ▴ button to select.
Result: The options available in the **Install** group are displayed in the right-hand part of the menu.
- 4 Press the P ▼ or P ▲ buttons one or more times, until the **Progr. Naming** option is selected.
- 5 Press the + ▴ button.
Result: The **Progr. Naming** menu is displayed with the current channel automatically selected.
- 6 If necessary, select the channel to be assigned a new name by pressing the P ▼ or P ▲ buttons.
- 7 Press the + ▴ button.
Result: Arrow indications are displayed around the Name box.
- 8

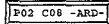
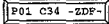
To...	Then press the...
Select a letter, number or symbol	P ▼ or P ▲ buttons.
Move on the next letter	+ ▴ button.
Move back the previous letter	- ▾ button.

➤ The characters available are:

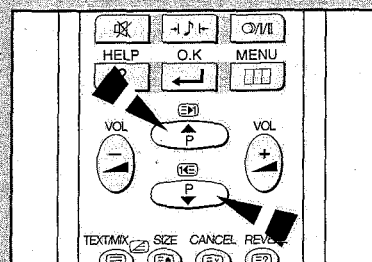
 - ◆ Letters of the alphabet (A ... Z)
 - ◆ Numbers (0 ... 9)
 - ◆ Special characters (., -, space)
- 9 When you have finished entering the name, press the O.K button (←).
- 10 Repeat Steps 6 to 9 for each channel to be assigned a name.
- 11 Press the TV (⏻) to return to normal viewing.

Changing Channels

Once you have stored the channels on your television, you can select them easily via your remote control.

To switch to the...	Then press the...
Next channel	P ▲ button. <u>Result:</u> The selected channel appears with an indication similar to the one below: 
Previous channel	P ▼ button. <u>Result:</u> The selected channel appears with an indication similar to the one below: 
Channel of your choice	The appropriate numeric button(s).

- For double digit channels, the second digit must be pushed immediately after the first. Failure to do this will result in a single digit channel being displayed.



Selecting a Channel by Name

You can display the list of stored channels.

- 1 Press the INFO button (E).

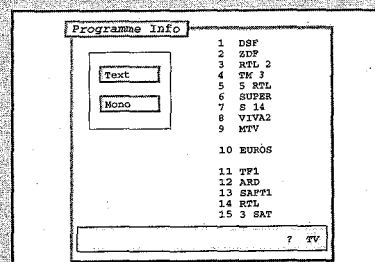
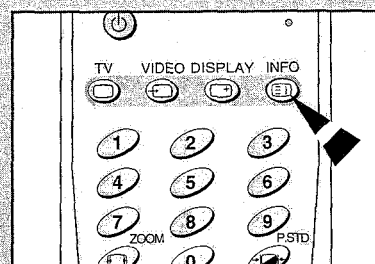
Result: A list is displayed with the first 15 channels. Two text boxes to the left of the list indicate:

- ◆ Whether the Teletext feature is available
- ◆ Which sound mode is being used (mono or stereo for example)

- 2 To... Then press the...

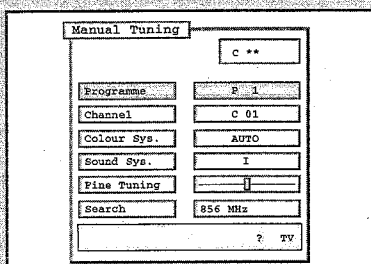
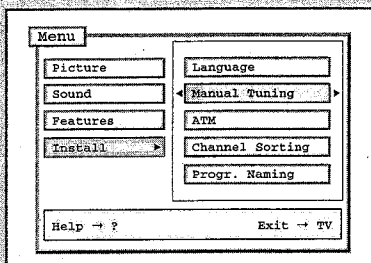
Scroll through the stored channels P ▼ or P ▲ buttons.
Result: The corresponding channel is displayed.

Select a specific channel TV button (□).
Result: The corresponding channel is displayed and the Programme Info box disappears.



- ◆ External inputs can be displayed and scrolled through in the same way.

Fine-tuning Channel Reception

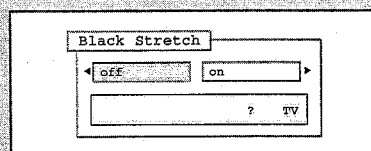
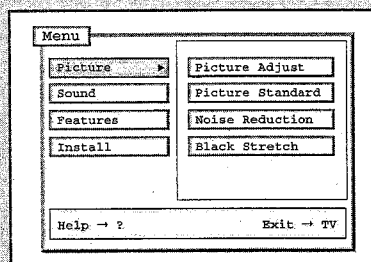


If reception is weak, you can fine-tune a channel manually.

- 1 Select the channel to be fine-tuned using the P ▲ or P ▼ buttons.
- 2 Press the MENU button (□□□).
Result: The main menu is displayed.
- 3 Press the P ▼ or P ▲ buttons one or more times to highlight the Install box.
- 4 Press the + ▴ button to select.
Result: The options available in the Install group are displayed in the right-hand part of the menu.
- 5 Press the P ▼ or P ▲ buttons one or more times, until the Manual Tuning option is selected.
- 6 Press the + ▴ button.
Result: The Manual Tuning menu is displayed.
- 7 Press the P ▼ button until the Fine Tuning option is selected.
- 8 Press the + ▴ or - ▾ buttons until the picture and sound are both clear and sharp.
- 9 Press the O.K button (◀) to store your setting.
- 10 Press the TV button (□) to return to normal viewing.

- ♦ You can ignore any changes made and return to the previous setting by pressing the green button.
- ♦ If you are unable to fine-tune a channel, check that the Colour Sys. and Sound Sys. settings are correct (see page 16).

Activating/Deactivating the Black Stretch Feature



The contrast between blacks and whites can be increased using the Black Stretch feature (deeper blacks and more intense whites).

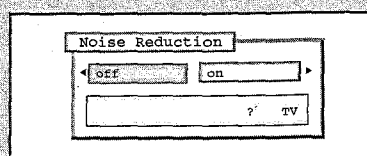
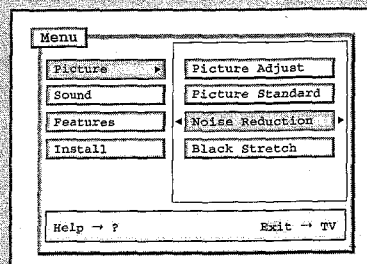
- 1 Press the MENU button (□□□).
Result: The main menu is displayed.
 - 2 Press the + ▴ button to select the Picture box.
Result: The options available in the Picture group are displayed in the right-hand part of the menu.
 - 3 Press the P ▼ or P ▲ buttons one or more times, until the Black Stretch option is selected.
 - 4 Press the + ▴ button.
Result: The Black Stretch menu is displayed with the current option.
- | To... | Then press the... |
|--------------------------|---------------------|
| Change the option | + ▴ or - ▾ buttons. |
| Confirm the option | O.K button (◀). |
| Return to normal viewing | TV button (□). |

Activating/Deactivating the Noise Reduction Feature

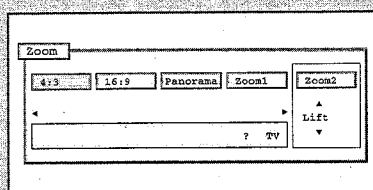
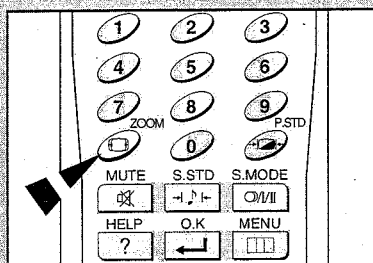
If the broadcast signal received by your television is weak, you can activate the Noise Reduction feature to help reduce any static and ghosting that may appear on the screen.

- 1 Press the MENU button (□□).
Result: The main menu is displayed.
 - 2 Press the + ▴ button to select the Picture box.
Result: The options available in the Picture group are displayed in the right-hand part of the menu.
 - 3 Press the P ▼ or P ▲ buttons one or more times, until the Noise Reduction option is selected.
 - 4 Press the + ▴ button.
Result: The Noise Reduction menu is displayed with the current option.
- | 5 | To... | Then press the... |
|---|--------------------------|---------------------|
| | Change the option | + ▴ or - ▾ buttons. |
| | Confirm the option | O.K button (↵). |
| | Return to normal viewing | TV button (□). |

GB



Selecting the Picture Zoom Format



You can use your remote control to select the picture format which best corresponds to your viewing requirements. The following picture formats are available.

- 1 Press the ZOOM button ().
Result: The zoom menu is displayed.
- 2 Select the required option by pressing the +  and -  buttons.
Result: The picture is changed accordingly.
- 3 If you have selected the zoom option, you can shift the picture up and down as required, by pressing the P  or P  buttons.
- 4 Press the TV button () to return to normal viewing.

- ◆ When you are watching the picture not the Teletext, the SIZE button () is working to picture size button. (Normal ↔ Wide, Zoom1/Zoom2 → Wide)
- ◆ The SIZE button () does not work when the RGB signal comes from scart jack, but both Zoom1 and Zoom2 modes are available. The RGB input signal determines the picture format.



- ◆ **4:3**
When the input source is 4:3 picture format.



- ◆ **16:9**
When the input source is 16:9 wide format.



- ◆ **Panorama**
Stretches the picture horizontally to full screen when the input source is normal 4:3 picture format.



- ◆ **Zoom1**
Magnifies the size of the picture.



- ◆ **Zoom2**
Magnifies the size of the picture more than Zoom1. You can also move the picture up and down to enjoy letter box mode for movies. Press P  or P  to shift the picture upward or downward.

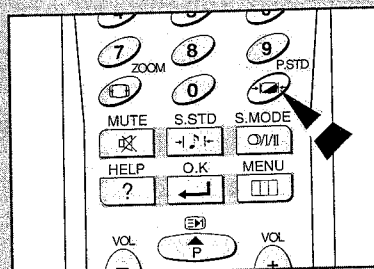
Changing the Picture Standard

You can use your remote control to select the type of picture which best corresponds to your viewing requirements. The following picture effects are available in the order given:



To select the required picture effect, simply press the P.STD button (P with a small square) on the remote control.

You can also set these options via the **Picture Standard** option in the **Picture** group. If you change the brightness, colour, contrast, sharpness, colour tone or tint settings on the **Picture** menu, the **Custom** option is selected automatically.



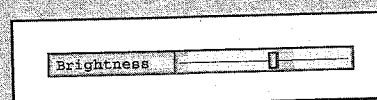
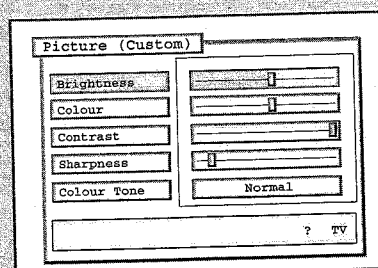
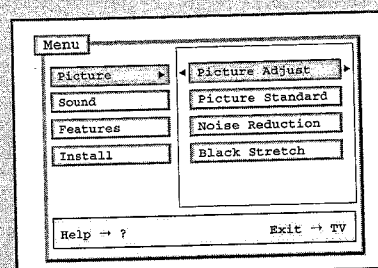
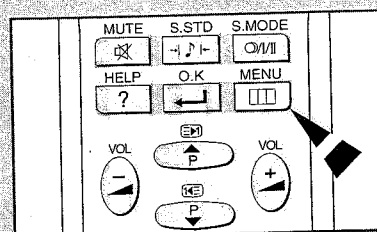
Adjusting the Picture Settings

Your television has several settings which allow you to control picture quality:

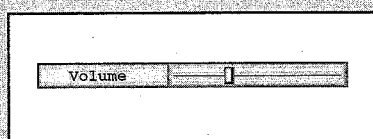
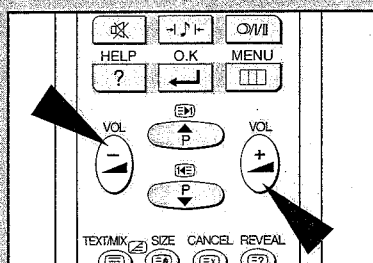
- ◆ **Brightness, Colour, Contrast, Sharpness, Colour Tone (except NTSC), Tint (NTSC only)**

- 1 Press the MENU button (□).
Result: The main menu is displayed.
- 2 Press the + button.
Result: The **Picture Adjust** option is highlighted.
- 3 Press the + button.
- 4 Press the P ▼ or P ▲ buttons one or more times to select the option to be adjusted.
- 5

To change the...	Then press the...
◆ Brightness	◆ + button.
◆ Colour	◆ + button.
◆ Contrast	◆ + button.
◆ Sharpness	◆ + button.
◆ Tint (NTSC only)	◆ + or - button until you reach the required setting.
Colour Tone	◆ + button until the required option (Warm, Cool or Normal) is displayed.
- 6 When you are satisfied with the settings, press the O.K button (↵) to store them.
- 7 When you have finished, press the TV button (□) to return to normal viewing.



Adjusting the Volume

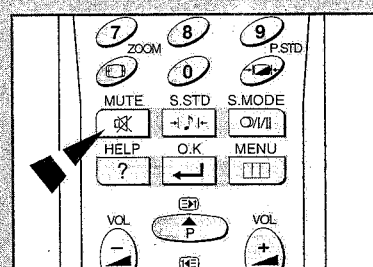


You can adjust the volume using your remote control.

To...	hold down the...
Increase the volume	+ button. Result: A horizontal bar is displayed and the volume increases until you release the button. The cursor moves to the right to indicate the volume.
Decrease the volume	- button. Result: A horizontal bar is displayed and the volume decreases until you release the button. The cursor moves to the left to indicate the volume.

- ◆ When the television is set to Standby mode, the volume setting is stored. When the television is switched off, the volume is reset to its factory-set level.
- ◆ Additional sound adjustments are available on your television. For further details, refer to pages 25 to 31.

Switching the Sound Off Temporarily



You can switch the sound off temporarily.

Example: *You wish to answer the telephone.*

- 1 Press the MUTE button (MUTE) on the remote control.

Result: The sound is switched off and **Sound Mute** is displayed briefly on the screen followed by **MUTE**.
- 2 When you wish to turn the sound back on, press the same button again.

Result: The sound comes back on at the same volume as before and the **MUTE** indication disappears.

Selecting the Sound Mode

The following sound reproduction modes can be selected.

Option	Description
Mono	Used when broadcasts are received in mono (many air broadcasts for example).
Stereo (⊕)	Used when broadcasts are received in stereo or NICAM stereo or for Hi-Fi stereo VCR or camcorder recordings.
Dual I (I)	Used for bilingual broadcasts received on a single channel.
Dual II (II)	Used for bilingual broadcasts received on two channels.

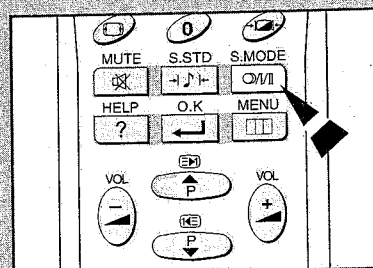
To select the sound mode, simply press the S.MODE button (⊕/II) until the required option is displayed.

If you are receiving... Then you can choose between...

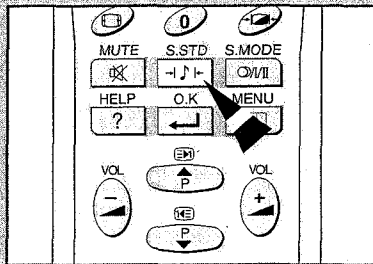
stereo sound (For Germany)	Stereo and mono for both the loudspeakers and any headphones connected.
stereo sound (For other European countries)	stereo and mono FM for the loudspeakers only.
Bilingual I/II sound (stereo for Germany)	Bilingual I and Bilingual II for the loudspeakers only.
Bilingual I/II sound (stereo for other European countries)	Bilingual I, Bilingual II and stereo for the loudspeakers only.

➤ To choose the sound mode for headphones, select the Headphone option in the sound group (see page 31).

GB



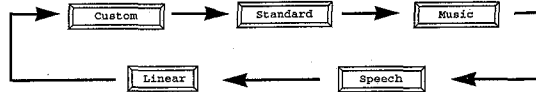
Selecting the Sound Standard



You can use your remote control to select the type of special sound effect to be used when watching a given broadcast.

Example: When watching a film or listening to a speech.

The following sound effects are available in the order given:



To select the required sound effect, simply press the S.STD button (→♪←) on the remote control.



You can also select the sound standard via the **Sound Standard** option in the **Sound** group.

Adjusting the Sound Settings

The sound settings can be adjusted to suit your personal preferences.

- ◆ Volume
- ◆ Balance
- ◆ Equalizer

1 Press the MENU button (□□).

Result: The main menu is displayed.

2 Press the P ▼ or P ▲ buttons one or more times to highlight the sound box. Press the + ▴ button to select.

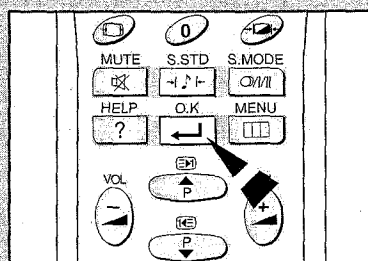
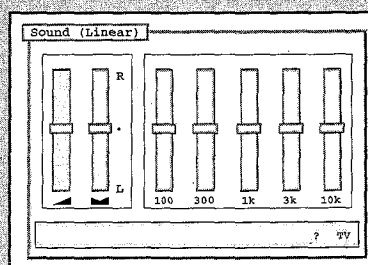
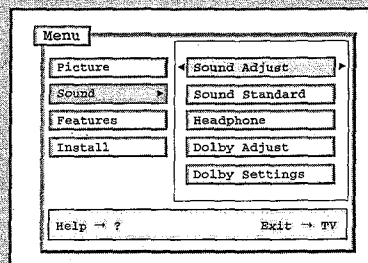
Result: The sound adjust option is highlighted.

3 Press the + ▴ button.

Result: The sound menu is displayed.

To...	Then press the...
Change a setting	P ▼ or P ▲ buttons.
Move to the next setting	+ ▴ button.
Move back to the previous setting	- ▾ button.
Confirm the changes	O.K button (←).
Return to normal viewing	TV button (□).

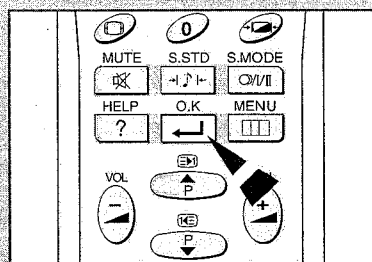
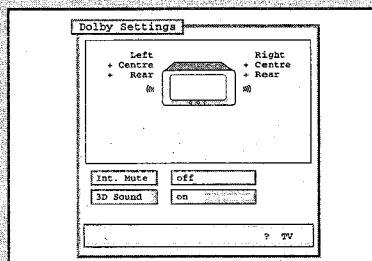
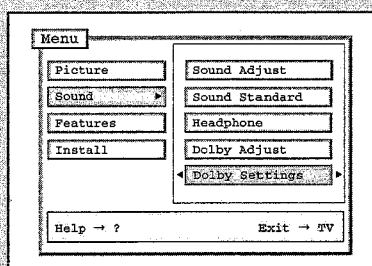
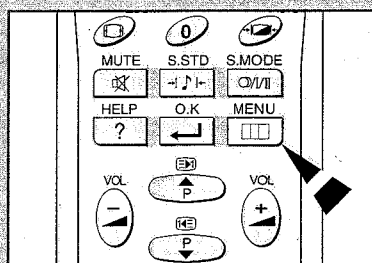
 If you make any changes to the **Equalizer** settings, the sound standard is automatically switched to **Custom**.



GB

Setting the 3D Sound Mode

GB



You can activate 3D Sound to enjoy Dolby surround effect through the left and right speakers.

- 1 Press the MENU button (□).
Result: The main menu is displayed.
- 2 Press the P ▼ or P ▲ buttons one or more times to highlight the Sound box. Press the + ▴ button to select.
Result: The options available in the **Sound** group are displayed.
- 3 Press the P ▼ or P ▲ buttons one or more times, until the **Dolby Settings** option is selected.
- 4 Press the + ▴ button.
Result: The **Dolby Settings** menu is displayed.
- 5 Press the P ▼ or P ▲ buttons to select the **3D Sound** option.
- 6

To...	Then press the...
Change the option	+ ▴ or - ▾ buttons.
Confirm the option	O.K button (↵).
Return to normal viewing	TV button (□).

Setting the Dolby Mode () (Option)

Full Dolby sound mode is selected if a RCA jack is connected to the front L, R Audio Output connectors on the rear of the television.

The "3D Sound" option in the Dolby Settings menu changes to "Surround". This allows various modes for the main, centre and rear speakers to be selected.

Mode	Input Signal	Main	Speakers Centre	Rear
Normal	Stereo Mono	✓	✓ ✓	✓
Phantom	Stereo Mono	✓ ✓		✓
Wide	Stereo Mono	✓	✓ ✓	✓
3 Channel	Stereo Mono	✓	✓ ✓	
Hall	Stereo Mono	✓ ✓	✓ ✓	✓ ✓
3D Sound	Stereo Mono	✓ ✓		
off	Stereo Mono	✓ ✓		



◆ ✓ ; Sound

◆ When the input signal is in mono, the Dolby Setting is automatically set to the "Phantom" mode.

- 1 Press the MENU button ().

Result: The main menu is displayed.

- 2 Press the P ▼ or P ▲ buttons one or more times to highlight the sound box. Press the + ▴ button to select.

Result: The options available in the sound group are displayed.

- 3 Press the P ▼ or P ▲ buttons one or more times, until the Dolby settings option is selected.

- 4 Press the + ▴ button.

Result: The Dolby Settings menu is displayed.

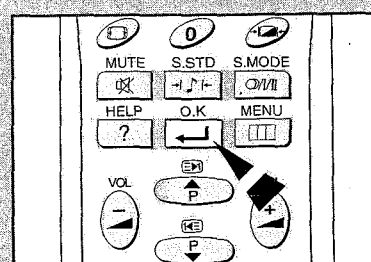
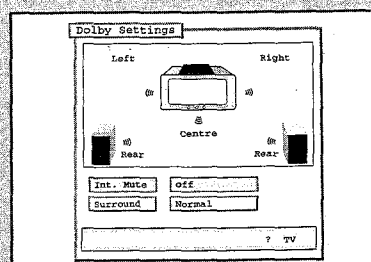
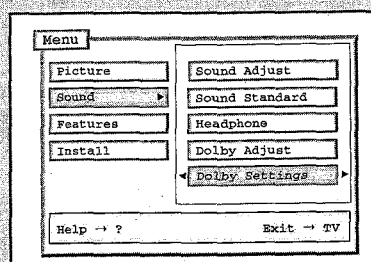
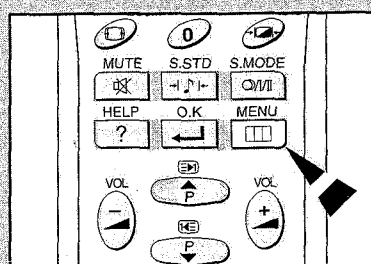
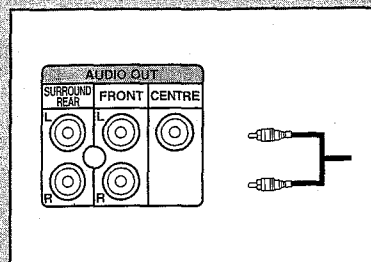
- 5 Press the P ▼ or P ▲ buttons to select the Surround option.

- 6 Press the + ▴ or - ▾ buttons to select the required option.

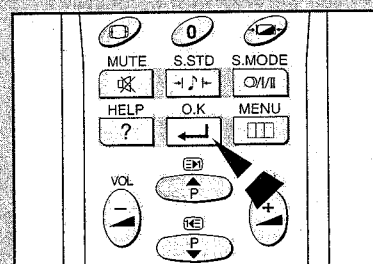
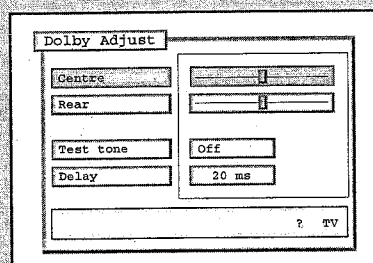
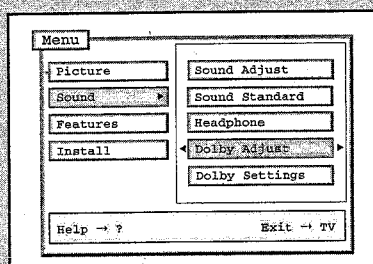
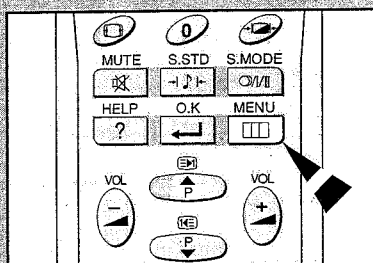
- 7 If you wish to silence the internal speakers, press P ▲, followed by the + ▴ button to set Int. Mute to on.

- 8 Press the O.K button () to store the settings.
Press the TV button () to return to normal viewing.

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Adjusting Your Dolby Preferences



The following Dolby settings can be adjusted to suit your personal preferences.

- ◆ Volume of the centre and rear speakers
- ◆ Activation/deactivation of the test tone to simulate the volume on each speaker
- ◆ Prologic delay time for the rear speakers (between 15 and 30 ms)

1 Press the MENU button (□□□).

Result: The main menu is displayed.

2 Press the P ▼ or P ▲ buttons one or more times to highlight the Sound box. Press the + ▴ button to select.

Result: The options available in the Sound group are displayed.

3 Press the P ▼ or P ▲ buttons one or more times, until the Dolby Adjust option is selected.

4 Press the + ▴ button.

Result: The Dolby Adjust menu is displayed.

5 To...	Then press the...
Change an option	+ ▴ or - ▾ buttons.
Move to the next option	P ▼ button.
Move to the previous option	P ▲ button.
Confirm your changes	O.K button (↵).
Return to normal viewing	TV button (□).

➤ Manufactured under license from Dolby Laboratories Licensing Corporation.

DOLBY, the double-D symbol  and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

Connecting Headphones

You can connect a set of headphones to your television if you wish to watch a television programme without disturbing the other people in the room.

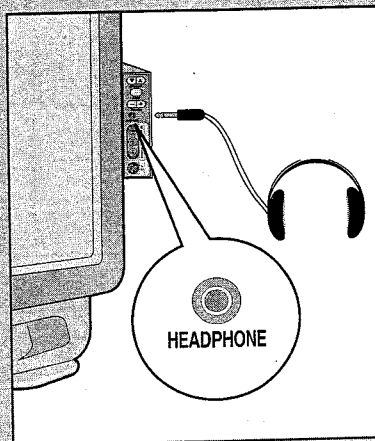
- 1 Plug a set of headphones into the 3.5 mm mini-jack socket on the side of the television.

Result: The sound is heard through the headphones.

- Turn the volume down when you wish to enjoy the sound through the headphone only. For further details on how to set your headphone preferences (volume, treble, bass, balance and sound mode), refer to the section below.

- 2 When you wish to hear the sound through the speakers again, simply disconnect the headphones and adjust the volume.

- Prolonged use of headphones at a high volume may damage your hearing.



Adjusting Your Headphone Preferences

You can adjust the headphone settings to suit your preferences. You can adapt the volume, treble, bass, balance and sound modes.

- 1 Press the MENU button (□□□).

Result: The main menu is displayed.

- 2 Press the P ▼ or P ▲ buttons one or more times to highlight the sound box. Press the + ◀ button to select.

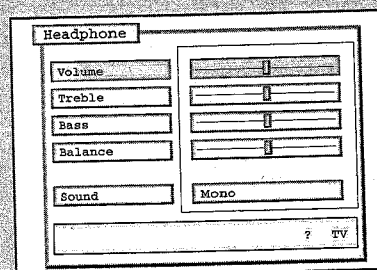
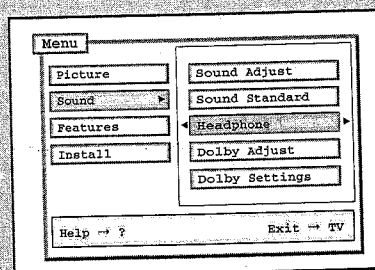
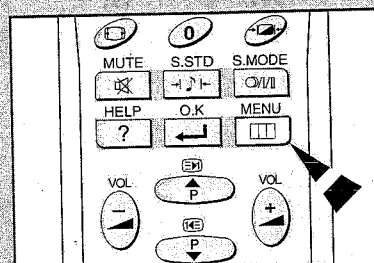
Result: The options available in the sound group are displayed.

- 3 Press the P ▼ or P ▲ buttons one or more times, until the Headphone option is selected.

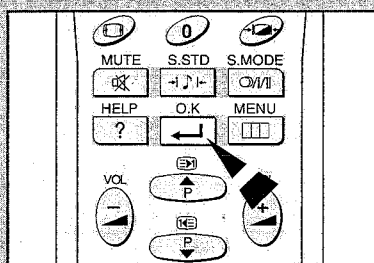
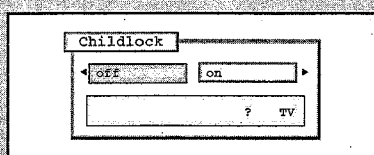
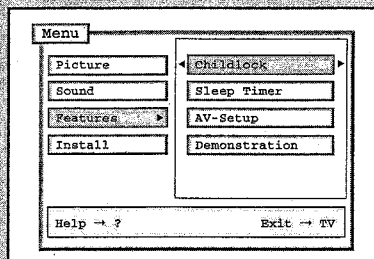
- 4 Press the + ◀ button.

Result: The Headphone menu is displayed.

- | 5 To... | Then press the... |
|-----------------------------|---------------------|
| Change an option | + ◀ or - ▶ buttons. |
| Move to the next option | P ▼ button. |
| Move to the previous option | P ▲ button. |
| Confirm your changes | O.K button (◀). |
| Return to normal viewing | TV button (□). |



Activating the Child Lock



The Child Lock feature allows you to lock the television so that it cannot be switched on via the front panel. It can, however, still be switched on via the remote control. Thus, by keeping the remote control away from unauthorised users, such as children, you can prevent them from watching television.

- 1 Press the MENU button (□□□).
Result: The main menu is displayed.
- 2 Press the P ▼ or P ▲ buttons one or more times to select the Features box.
- 3 Press the + button.
Result: The available options are displayed.
- 4 Select the Childlock option by pressing the + button.
Result: The Childlock menu is displayed.
- 5

To...	Then...
Lock the television	◆ Select on ◆ Press the O.K button (←) Result: The television is locked.
Unlock the television	◆ Select off ◆ Press the O.K button (←) Result: The television is unlocked.

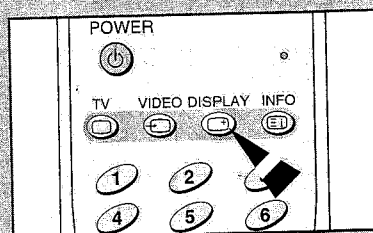
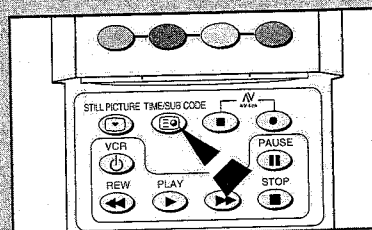
Displaying Information on the Screen

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Different types of information can be displayed on the screen.

- Examples:**
- ◆ Current time
 - ◆ Current programme number

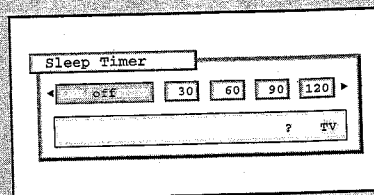
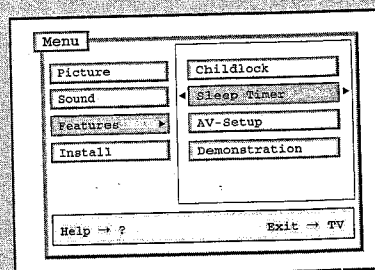
To display...	Then...
The current time (in Teletext mode only) (See page 36.)	◆ Slide open the lower cover on the remote control ◆ Press the TIME/SUB CODE button (E9)
Other general information (sound mode, channel name)	◆ Press the DISPLAY button (E0)



Setting the Sleep Timer

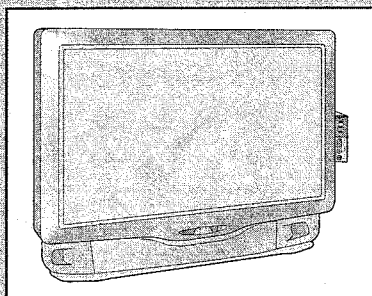
You can select a time period of between 30 and 120 minutes after which the television automatically switches to Standby mode.

- 1 Press the MENU button (III).
- 2 Press the P ▼ or P ▲ buttons one or more times to highlight the Features box. Press the + ▴ button to select.
Result: The options available are displayed.
- 3 Press the P ▼ or P ▲ buttons one or more times, until the Sleep Timer option is selected.
- 4 Press the + ▴ button.
Result: The Sleep Timer menu is displayed.
- 5 Press the + ▴ or - ▾ buttons one or more times to select the number of minutes after which the television switches to Standby.
- 6 Press the O.K button (↵) to confirm your selection.
- 7 Press the TV button (□) to return to normal viewing.
Result: One minute before the television set is automatically switched off, a bar indicating Sleep Timer appears on the screen.



- After setting the timer, you can:
- ◆ Display the remaining time by pressing the DISPLAY button (E0)
 - ◆ Modify the timer setting by displaying the Sleep Timer menu again
 - ◆ Switch the timer off, by selecting off

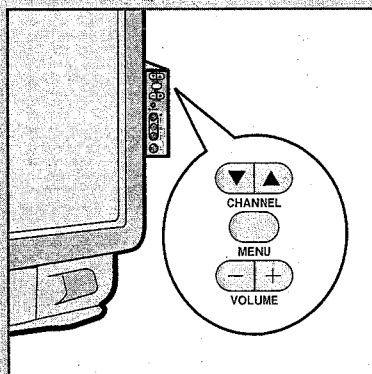
Opening the Side Panel on the Television



The buttons and connectors on the side panel of the television are protected by a cover.

To...	Then...
Open the cover	Press gently on the cover and then release it. <u>Result:</u> The cover opens.
Close the cover	Push the cover gently back into place until you hear a click.

Using the Buttons on the Side Panel



If your remote control no longer works or you have lost it, you can use the controls on the side panel of the television to:

- ◆ Switch on the television when it is in Standby mode and select channels (▼ CHANNEL ▲)
- ◆ Access the main menu (MENU)
- ◆ Adjust the volume (- VOLUME +)

Buttons on the side panel have the same function as corresponding buttons on the remote control.

➤ MENU button () works same to O.K button () on the remote control when the menu is displayed and the menu displayed disappears automatically a few seconds.

Using the VCR Buttons on the Remote Control

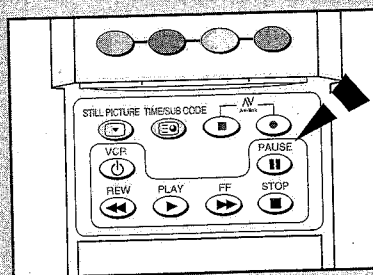
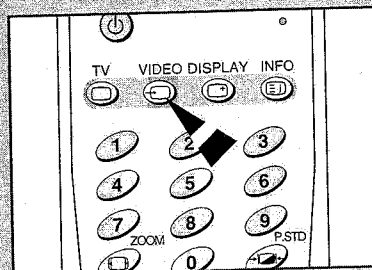
The VCR buttons in the lower part of the remote control can be used to select the basic functions on your SAMSUNG video cassette tape recorder.

- It is only possible to start recording via your television's remote control if your VCR is equipped with the AV-Link feature. For more details, refer to page 41.

- 1 Insert the pre-recorded cassette tape in the VCR.
- 2 If your television is linked via a SCART cable, switch the television on and select the appropriate input source by pressing the VIDEO button () one or more times.
- 3 Slide open the lower cover on the remote control.
- 4

To...	Then press...
Switch the VCR on and off (Standby mode)	VCR ().
Play the cassette tape	PLAY (▶).
Fast-forward the cassette tape	FF (▶▶).
Rewind the cassette tape	REW (◀◀).
Stop the playback on a specific frame	PAUSE ().
Stop the current function	STOP (■).
Start recording on an AV-Link VCR	AV-link (•).
Stop recording on an AV-Link VCR	AV-link (■).

- If your VCR is linked via a coaxial cable you must retune your television using ATM or manual tuning (see pages 14 to 17). Play a tape so that your television has a signal to "catch". The VCR signal will be displayed as a normal channel. It will not be available in the EXT channel section.

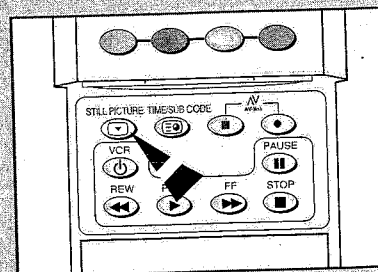


Freezing the Current Picture

You can freeze the picture when watching a television programme.

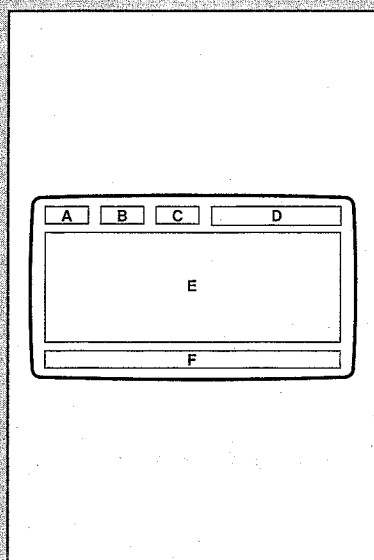
To...	Then press the...
Freeze the picture on a given frame	STILL PICTURE button ().
Return to normal viewing	STILL PICTURE button () again.

- The STILL PICTURE button is located in the VCR section of your remote control. However it will work with all channels.



Teletext Feature

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Most television channels provide a written information service via Teletext. Information provided includes:

- ◆ *Television programme times*
- ◆ *News bulletins and weather forecasts*
- ◆ *Sports results*
- ◆ *Travel information*

This information is divided into numbered pages (see diagram).

Part	Contents
A	Selected page number.
B	Current page number or search indications.
C	Broadcasting channel identity.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.



Teletext information is often divided between several pages displayed in sequence, which can be accessed by:

- ◆ Entering the page number
- ◆ Selecting a title in a list
- ◆ Selecting a coloured heading (FASTEXT system)

Displaying the Teletext Screen

You can display Teletext information at any time on your television.

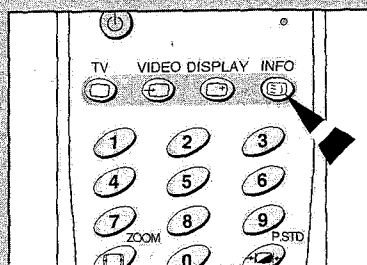
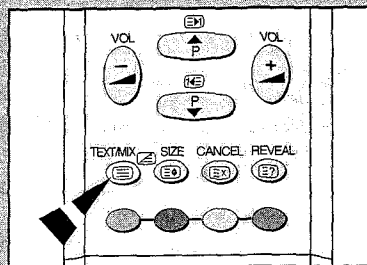
For Teletext information to be displayed correctly, channel reception must be stable; otherwise:

- ◆ Information may be missing
- ◆ Some pages may not be displayed

To activate the Teletext mode and display the contents page, follow the instructions below.

- 1 Select the channel providing the Teletext service, using the P ▼ or P ▲ buttons or the VIDEO button (E4).
- 2 Press the TEXT/MIX button (E1) to activate the Teletext mode.
Result: The contents page is displayed. It can be redisplayed at any time by pressing the INFO button (E3).
- 3 If you wish to display the actual broadcast at the same time as the Teletext page, press the TEXT/MIX button (E1) again.
- 4 When you have finished, press the TV button (E2) to continue viewing normally.

➤ A message box containing the words "No Text Transmission" will be displayed if the selected channel does not carry a Teletext signal.

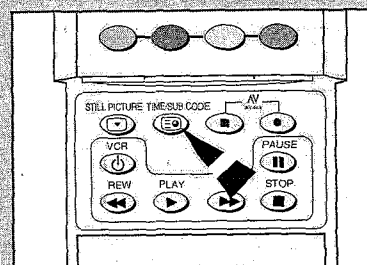
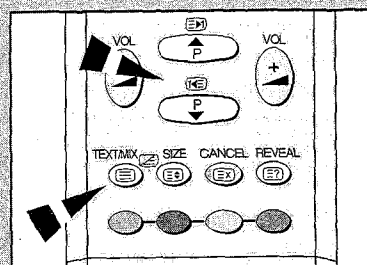


Selecting Display Options

When you have displayed a Teletext page, you can select various options to suit your requirements.

To display...	Press...
Both the Teletext information and the normal broadcast	TEXT/MIX (E1).
Hidden text (answers in questionnaire games, for example)	REVEAL (E4).
A secondary page by entering its number	TIME/SUB CODE (E9).
The next page	P ▲ (E1).
The previous page	P ▼ (E2).
In double-height letters...	SIZE (E2):
◆ The upper half of the page	◆ Once
◆ The lower half of the page	◆ Twice

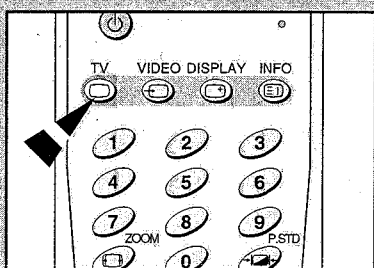
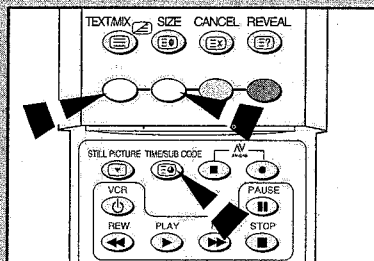
➤ To return to a full page display push the SIZE button (E2).



-
- ◆ To return to the normal display after using the REVEAL or SIZE features, press the TV button (E2) again.
 - ◆ When you are watching the picture not the Teletext, the SIZE button (E2) is working to picture size button (Normal ↔ Wide, Zoom1/Zoom2 → Wide).

Selecting a Teletext Page

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You can enter the page number directly by pressing the numeric buttons on the remote control.

- 1 Enter the three-digit page number given in the contents, by pressing the corresponding numeric buttons.

Result: The current page number is incremented until the requested page is reached. That page is then displayed. If the selected page is linked with several secondary pages, the secondary pages are displayed in turn.

- 2 If the FASTEXT system is used by the broadcasting company, the different topics covered on a Teletext page are colour-coded and can be selected by pressing the coloured buttons on the remote control.

Press the coloured button corresponding to the topic that you wish to select; the available topics are given on the status line.

Result: The page is displayed with other coloured information that can be selected in the same way.

- 3
- | To display the... | Press the... |
|--------------------|---|
| Previous/Next page | Corresponding coloured button. |
| Subpage | 1. TIME/SUB CODE button ().
➤ The available subpages are appeared.
2. Select the required subpage. |

- 4 When you have finished, press the TV button () again to return to your normal broadcast.

AV-Link Feature

Your television is equipped with an AV-Link feature. Data received on your television can be directly transferred to an AV-Link equipped VCR. Devices connected via AV-Link can exchange information.

WYSIWYR Principle

The WYSIWYR (What You See Is What You Record) principle means that you can start recording on your VCR a programme that you are currently watching on your TV, simply by pressing the AV-Link Record button (*) on the remote control.

Advantages:

You can record a programme without having to:

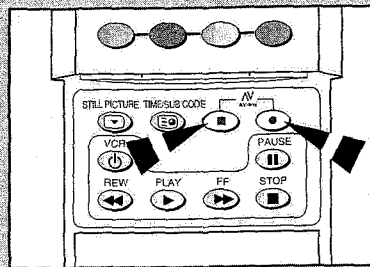
- ◆ Switch on the VCR
- ◆ Select the same programme on the VCR
- ◆ Start recording by pressing the record button on the VCR remote control

Automatic Channel Downloading

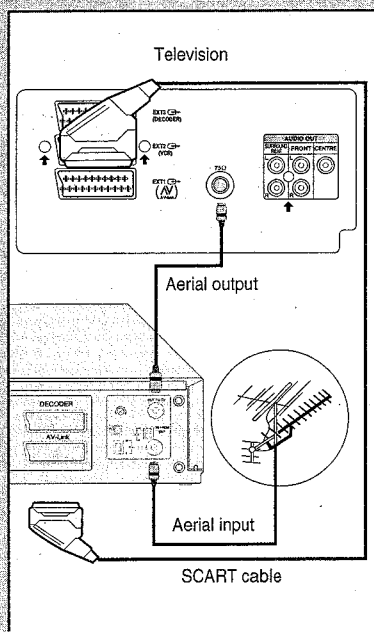
The AV-Link feature also allows the channels to be automatically downloaded from the TV to the VCR.

For more details, refer to page 41.

GB



Connecting an AV-Link VCR



To connect an AV-Link VCR to your television, you must use a SCART cable.

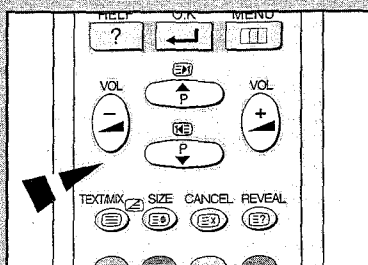
- 1 Plug the aerial input cable into the appropriate socket on the VCR.
- 2 Connect one end of the SCART cable to the AV-Link EXT1 socket on the rear of the television.
➤ You can only use the EXT1 socket on your television to connect the AV-Link VCR.
- 3 Connect the other end of the SCART cable to the appropriate AV-Link SCART socket on the VCR.
- 4 Select the EXT1 option and download the preset channels from your television to your VCR by following the indications on page 41.

➤ As the EXT1 connection always receives the actual TV tuner signal, you do not need to tune your VCR to your television, as with a standard VCR.

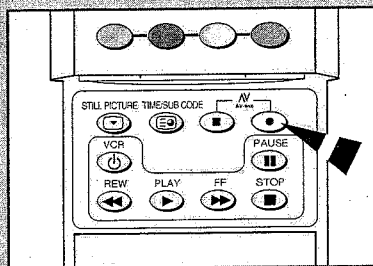
GB

- 1 Press the MENU button ().
Result: The main menu is displayed.
- 2 Press the P ▼ or P ▲ buttons one or more times to highlight the **Features** box. Press the + ◀ button to select.
- 3 Press the P ▼ or P ▲ buttons one or more times to highlight the **AV-Setup** option. Press the + ◀ button to select.
Result: The **AV-Setup** menu is displayed.
- 4 Select the **EXT1** option and press the + ◀ button.

5	To...	Then press the...
	Transfer the preset channel tuning information from the TV to the VCR	◆ P ▼ to highlight the Preset Download option ◆ + ▴ or - ▾ to select "Start"
	Indicate that every programming change from the TV set is to be transferred to the VCR	◆ P ▼ twice to highlight the Auto Preset option ◆ + ▴ or - ▾ to select "Yes"
	Indicate that you connected a decoder to your VCR to unscramble encrypted channels	◆ P ▼ three times to highlight the Decoder on VCR option ◆ + ▴ or - ▾ to select "Yes"
6	To return to normal viewing, press the TV button ().	



Recording Directly via the AV-Link Feature



The AV-Link feature allows you to start recording on your VCR the programme you are watching on your TV, simply by pressing the AV-Link Record button (•) on the remote control.



If you are recording a source that is not directly available on the VCR's tuner (a signal from a decoder or input via the front AV connections, for example), a warning message appears if you try to change channels or switch your TV to the standby mode, for example.

- 1 Select the required channel, pressing P ▼, P ▲ or VIDEO (⏏).
Result: The selected channel is displayed on the TV screen.
- 2 To start recording this channel, press the AV-Link Record button (•).
Result: Recording will stop only when reaching the end of the cassette tape.
- 3 To stop recording, press the AV-Link Stop button (■) on the remote control.

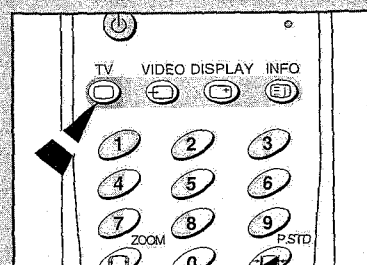
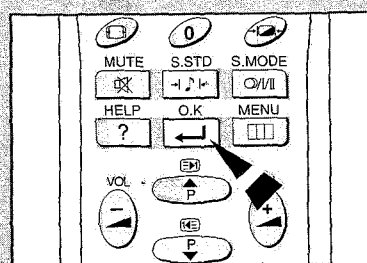
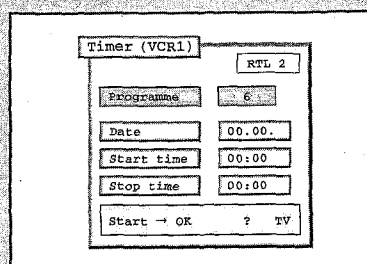
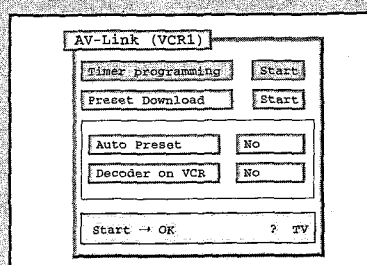
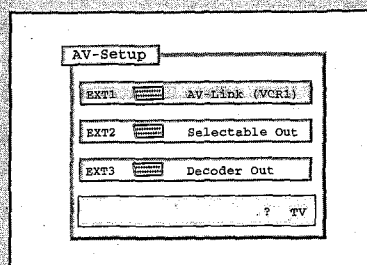
Setting the Programmed Record Timer

At any time, you can set the timer options to record a programme automatically on your AV-Link VCR.

- 1 Press the MENU button (□□□).
Result: The main menu is displayed.
- 2 Press the P ▼ or P ▲ buttons one or more times to highlight the Features box. Press the + ▴ button to select.
- 3 Press the P ▼ or P ▲ buttons one or more times to highlight the AV-Setup option. Press the + ▴ button to select.
Result: The AV-Setup menu is displayed.
- 4 Select the EXT1 option and press the + ▴ button.
Result: The AV-Link (VCR1) menu is displayed and the Timer programming option is selected.
- 5 Press the + ▴ button.
Result: The Timer (VCR1) menu is displayed and the Programme option is selected.
- 6 To select the... Then press...

Programme	◆ The numeric buttons for the required value or: ◆ The - ▾ or + ▴ buttons to decrease or increase the value respectively ➤ You can hold down the - ▾ or + ▴ buttons to decrease or increase the values more quickly
Date	◆ P ▼ or P ▲ until the Date option is selected ◆ The numeric buttons for the required date ➤ The date is displayed as follows: Day.Month.
Start time	◆ P ▼ or P ▲ until the start time option is selected ◆ The numeric buttons for the required time
Stop time	◆ P ▼ or P ▲ until the stop time option is selected ◆ The numeric buttons for the required time
- 7 When you are satisfied with the settings, press the O.K button (←) to confirm your choice.
Result: The setting information is transferred to the VCR.
- 8 To return to normal viewing, press the TV button (□).

GB

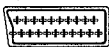
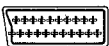
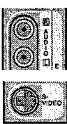


Deciding How to Connect Up Your Audio/Video Systems

You must take into account several factors when deciding how to connect your audio and/or video systems. These are:

- ◆ The types of connectors available on your systems
- ◆ Systems connected permanently to the television (VCR for example) or temporary (camcorder for example)

Your television is equipped with the following connectors.

Connector	Location	Type	Direction	Recommended Use
Ext1		Full RGB SCART	In/Out 	◆ AV-Link VCR ◆ Satellite receiver ◆ Game console (RGB usually required) ◆ Video disc player (RGB usually required)
Ext2		SCART (Video or S-Video)	In/Out 	◆ VCR
Ext3		SCART (Video or RGB)	In/Out 	◆ Decoder
Ext4 (SIDE AV)	Side 	RCA	In 	◆ Camcorder
	Side 	S-Video + audio RCA	In 	◆ Camcorder with S-Video output
75Ω	Rear 	Coaxial	In 	◆ Aerial or cable television network ◆ VCR to which an aerial or cable television network is connected
AUDIO OUT	Rear 	RCA	Out 	◆ Audio Hi-Fi system

Connection Tips



Here are a few hints and tips to help you decide which systems should be connected to the various connectors.

System	Hints and Tips
VCR	◆ For best results, use preferably a SCART or S-Video cable, in addition to a coaxial cable, to have better quality pictures via the tuner. ◆ If you also have a decoder, connect the decoder to the VCR and the VCR to the television. ◆ If you have a second VCR and wish to copy cassettes tape, connect the source VCR to Ext 1 and the target VCR to Ext 2, so that you can redirect the signal from Ext 1 to Ext 2; see page 48 for further details.
AV-Link VCR	◆ Use a SCART cable only. ◆ If you have a second VCR and wish to copy cassettes tape, proceed in the same way as with a standard VCR.
Satellite receiver	◆ Connect the receiver to Ext 1 and the VCR to Ext 2, so that you can redirect the signal from Ext 1 to Ext 2 when you wish to record a programme; see page 48 for further details.
◆ Game console ◆ Video disc player	◆ Connect these systems to Ext 1 only, as it accepts the RGB signals output from them.
S-Video or Hi-8 camcorder	◆ Plug the camcorder into the side AV connectors on the side panel (S-Video connector and two audio RCA connectors).
Audio system	◆ To take advantage of the Surround sound system, connect additional speakers to the AUDIO OUT connectors on the rear of the television.

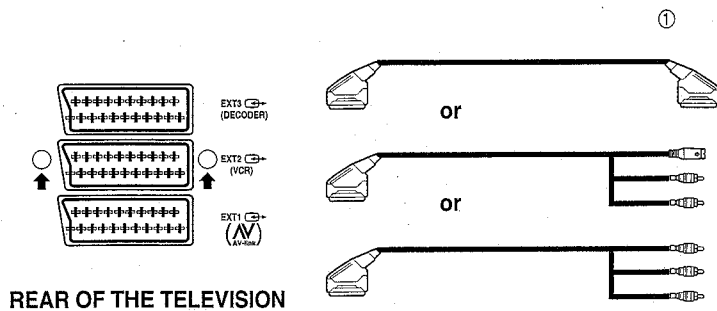


Whenever you connect an audio or video system to your television, ensure that all elements are switched off.

Refer to the documentation supplied with your equipment for detailed connection instructions and associated safety precautions.

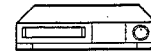
Connecting to the Ext 1, 2 or 3 SCART Input/Outputs

- Ext 1 is used for equipment with an RGB output, such as video games and video disc players or a VCR with the AV-Link feature.

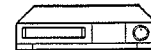


- ① This end can be fitted with:
- ◆ A SCART connector
 - ◆ An S-Video connector and two audio RCA connectors (L+R); Ext 2 only
 - ◆ Three RCA connectors (video + audio L and R)

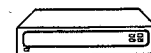
VCR (Ext 1, 2 or 3)



AV-Link VCR
(Ext 1 only)



Decoder (Ext 1, 2 or 3)/
video game (Ext 1)



Video disc player (Ext 1)

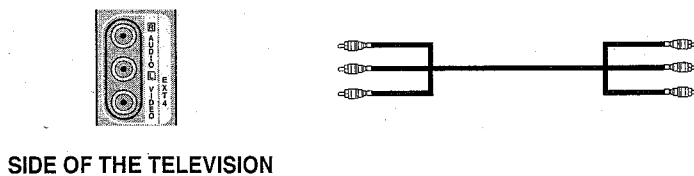


Satellite receiver
(Ext 1, 2 or 3)

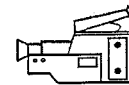


Connecting to the Side RCA Input

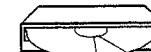
- The RCA connectors on the side of the television are used for equipment such as camcorders, video disc players and some video game devices.



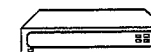
Camcorder



Video disc player



Video game device



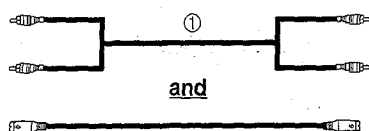
Connecting to the Side S-Video Input

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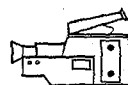
- The S-Video/RCA connectors on the side of the television are used for equipment with an S-Video output, such as a camcorder or VCR.



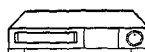
SIDE OF THE TELEVISION



Camcorder



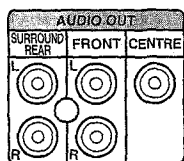
VCR



- ① To playback pictures and sound both the S-VIDEO and the RCA connections must be used.

Connecting to the AUDIO OUT RCA Output

- ♦ The AUDIO OUT RCA connectors on the rear of the television can be used for equipment, such as an audio system (to take full advantage of the Surround sound effect).
♦ Connect the speakers to AUDIO OUT via an amplifier.



REAR OF THE TELEVISION



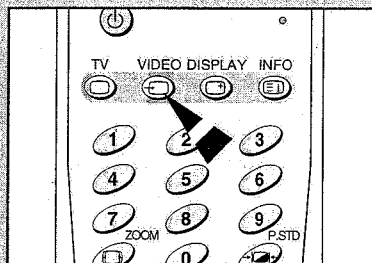
Audio system



- See the page 29 for further details on Setting the Dolby Mode.

Viewing Pictures From External Sources

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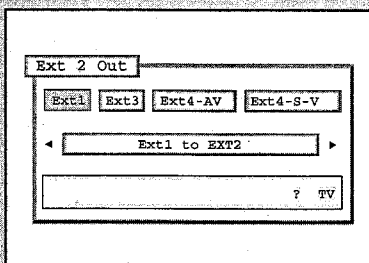
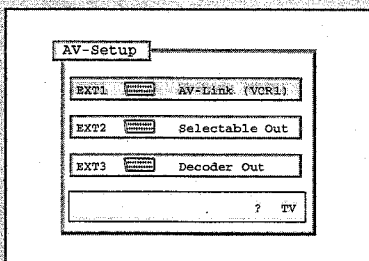
Once you have connected up your various audio and video systems, you can view the different sources by selecting the appropriate input.

- 1 Check that all the necessary connections have been made (refer to pages 46 and 47 for further details).
- 2 Switch the television on and if necessary, press the VIDEO button (VIDEO) one or more times until the required input is displayed.
 - Depending on the source selected, the pictures may appear automatically.

- To watch television programmes again, press the TV button (TV) and select the number of the channel required.

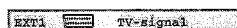
Redirecting an Input to the Ext 2 or Ext 3 Output

Your television enables you to choose which audio/video signals are output to the Ext 2 or Ext 3 connector.



- 1 Press the MENU button (MENU).
Result: The main menu is displayed.
- 2 Press the P ▼ or P ▲ buttons one or more times to highlight the Features box. Press the + ▴ button to select.
- 3 Press the P ▼ or P ▲ buttons one or more times to highlight the AV-Setup option. Press the + ▴ button to select.
Result: The AV-Setup menu is displayed.
- 4 Select the required output (Ext 2 or Ext 3) and press the + ▴ button.
- 5 Select the source to be directed to the output and press the O.K button (O.K) to confirm the change.
- 6 Press the TV button (TV) to return to normal viewing.

- When a standard VCR is plugged into the EXT1 connector, the following option is displayed.



SCART Connector Wiring (Ext 1, Ext 2 or Ext 3)



If you wish to connect other equipment via the SCART connectors on your television, contact your dealer or a qualified technician to wire the A/V cable as illustrated below.

Pin	Signal	Pin	Signal
1	Audio output R	12	-
2	Audio input R	13	Video chassis return (RGB red)
3	Audio output L	14	-
4	Audio chassis return	15	RGB red input
5	Video chassis return (RGB blue)	16	Blanking signal (RGB switching)
6	Audio input L	17	Video chassis return
7	RGB blue input	18	Blanking signal ground
8	Switching voltage	19	Video output
9	Video chassis return (RGB green)	20	Video input
10	AV-Link (Ext 1)	21	Screening/chassis return
11	RGB green input		

➤ Pins 5, 7, 9, 11, 13, 15 and 16 are used for RGB processing and are only wired on the Ext 1 connector.

Wiring the Mains Power Supply Plug (UK Only)

IMPORTANT NOTICE

The mains lead on this equipment is supplied with a moulded plug incorporating a fuse. The value of the fuse is indicated on the pin face of the plug and, if it requires replacing, a fuse approved to BS11362 of the same rating must be used.

Never use the plug with the fuse cover omitted if the cover is detachable. If a replacement fuse cover is required, it must be of the same colour as the pin face of the plug. Replacement covers are available from your dealer.

If the fitted plug is not suitable for the power points in your house or the cable is not long enough to reach a power point, you should obtain a suitable safety approved extension lead or consult your dealer for assistance.

However, if there is no alternative to cutting off the plug, remove the fuse and then safely dispose of the plug. Do NOT connect the plug to a mains socket as there is a risk of shock hazard from the bared flexible cord.

IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:

BLUE - NEUTRAL BROWN - LIVE

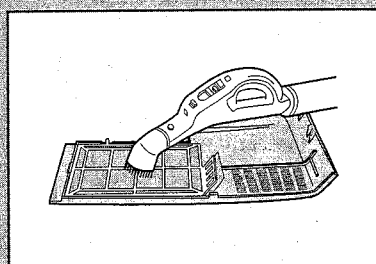
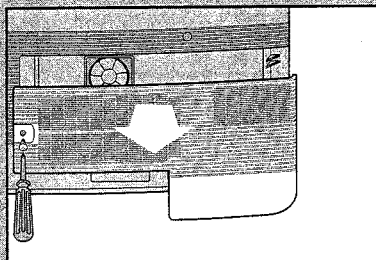
As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows:

The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured BLUE or BLACK.
The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured BROWN or RED.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL, WHICH IS MARKED WITH THE LETTER E OR BY THE EARTH SYMBOL $\perp$, OR COLOURED GREEN OR GREEN AND YELLOW.

Air Vent Cover Maintenance

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- 1 Turn the TV off and unplug it.
- 2 Remove the screw and take off the cover.
- 3 Remove the dust using a vacuum cleaner.
- 4 Replace the cover and screw.

- ♦ Please clean the air vent every 6 months.
- ♦ The TV has a fan to keep the inside lamp from overheating. You may hear this fan working occasionally.
- To prevent lamp overheating, clean the air vent in the rear panel periodically.

Troubleshooting: Before Contacting Service Personnel

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Before contacting Samsung after-sales service, perform the following simple checks.

If you cannot solve the problem using the instructions below, note the model and serial number of the television and contact your local dealer.

No sound or picture	◆ Check that the mains lead has been connected to a wall socket. ◆ Check that you have pressed the ON/OFF button (⏻) and the POWER button (⏻). ◆ Check the picture contrast and brightness settings. ◆ Check the volume.
Normal picture but no sound	◆ Check the volume. ◆ Check whether the volume MUTE button (🔇) has been pressed on the remote control.
No picture or black and white picture	◆ Adjust the colour settings. ◆ Check that the broadcast system selected is correct.
Sound and picture interference	◆ Try to identify the electrical appliance that is affecting the television and move it further away. ◆ Plug your television into a different mains socket.
Blurred or snowy picture, distorted sound	◆ Check the direction, location and connections of your aerial. This interference is often due to the use of an indoor aerial.
Remote control malfunctions	◆ Replace the remote control batteries. ◆ Clean the upper edge of the remote control (transmission window). ◆ Check the battery terminals.
The Record button (•) does not work	◆ This button is only operational with an AV-Link VCR. If you have an ordinary VCR, it has no effect. You must use the Record button on your VCR remote control. ◆ Check that your AV-Link VCR has been correctly connected.

➤ TV is automatically turned off

When the inside temperature of the TV becomes too high, the TV set is automatically turned off. You will observe the following.

1. "STAND BY/TEMP" LED is blinking for about 5~6 seconds.
2. The picture is turned to blue screen and "TEMPERATURE" character blinks for about 5~6 seconds.
3. The power is turned off and the "STAND BY/TEMP" LED is blinking for about 20 seconds.

🔊 This is not a TV set failure and normal operation.

Technical Specifications

The descriptions and characteristics in this booklet are given for information purposes only and are subject to modification without notice.

Colour systems	PAL / SECAM / NTSC 4.43
TV standards	B/G, I, D/K, L, L'
Number of channels	100
Reception range/cable TV	VHF: 2-12, UHF: 21-69, Cable: S1-S41
Sound	A2, NICAM Stereo, Dolby Prologic®, 3D sound
Consumption	168 watts
Power supply	230 V~, 50 Hz
Aerial input	75 Ohms, coaxial cable
Audio output power	2 x 13 W (stereophonic)
Number of loudspeakers	2
Sockets	1 full RGB SCART (Ext 1), 1 S-VIDEO/VIDEO SCART (Ext 2) 1 VIDEO SCAR (Ext 3), 1 S-VIDEO/RCA Input - side (Ext 4) 1 RCA Output (DOLBY SURROUND OUT)
Dimensions	29" x 40" x 14" - 74 x 101 x 35 cm (H x W x D)
Weight	59 lbs - 27 kg

Using Your Television in Different Countries

You can use your television in many countries. Each country has its own broadcasting standard. Refer to the following table to determine in which countries you can use your television.

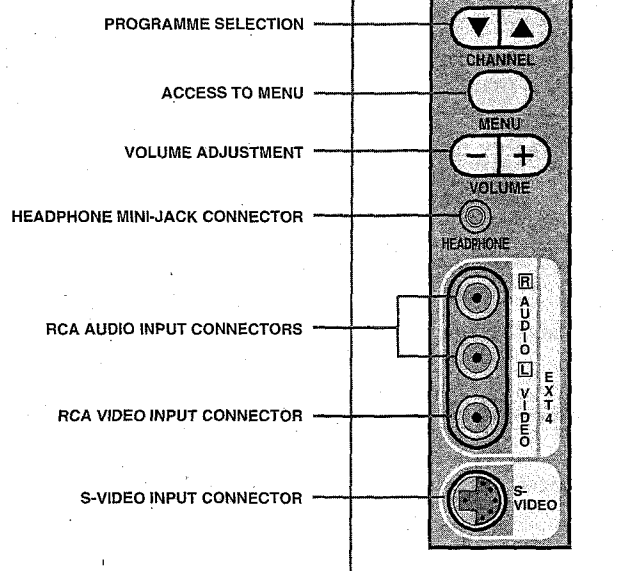
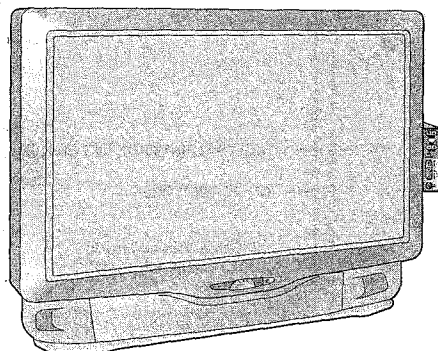
PAL B/G	Afghanistan, Algeria, Australia, Austria, Bangladesh, Belgium, Brunei, Burundi, Denmark, Finland, Germany, Ghana, Greenland, Holland, Iceland, India, Indonesia, Italy, Jordan, Kenya, Kuwait, Liechtenstein, Malaysia, Mozambique, Nepal, New Zealand, Nigeria, Norway, Oman, Pakistan, Papua New Guinea, Portugal, San Marino, Sierra Leone, Singapore, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Tanzania, Thailand, Turkey, Uganda, Yemen, Zambia, Zimbabwe.
PAL I	Great Britain, Hong Kong.
PAL D/K	China, Hong Kong, Mongolia.
SECAM L	Andorra, France, Luxembourg, Monaco.
SECAM B/G	Egypt, Greece, Iran, Iraq, Lebanon, Morocco, Mauritania, Saudi Arabia, Syria, Tunisia.
SECAM D/K	Bulgaria, Ivory Coast.



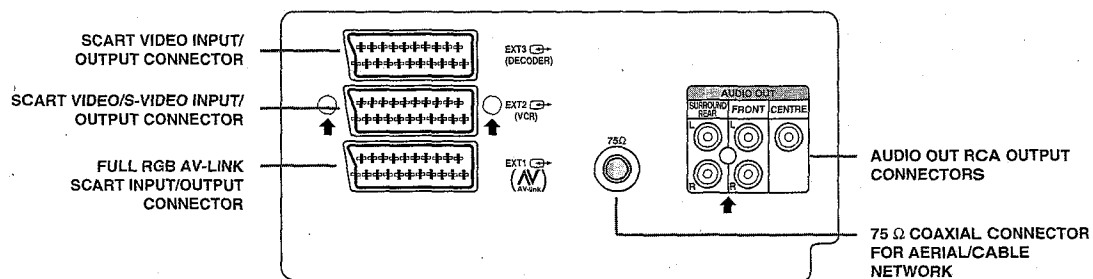
Before connecting your television, check that the local power supply corresponds to the one used by your television (220V/230V/240V~ 50Hz).

Side View of Your Television

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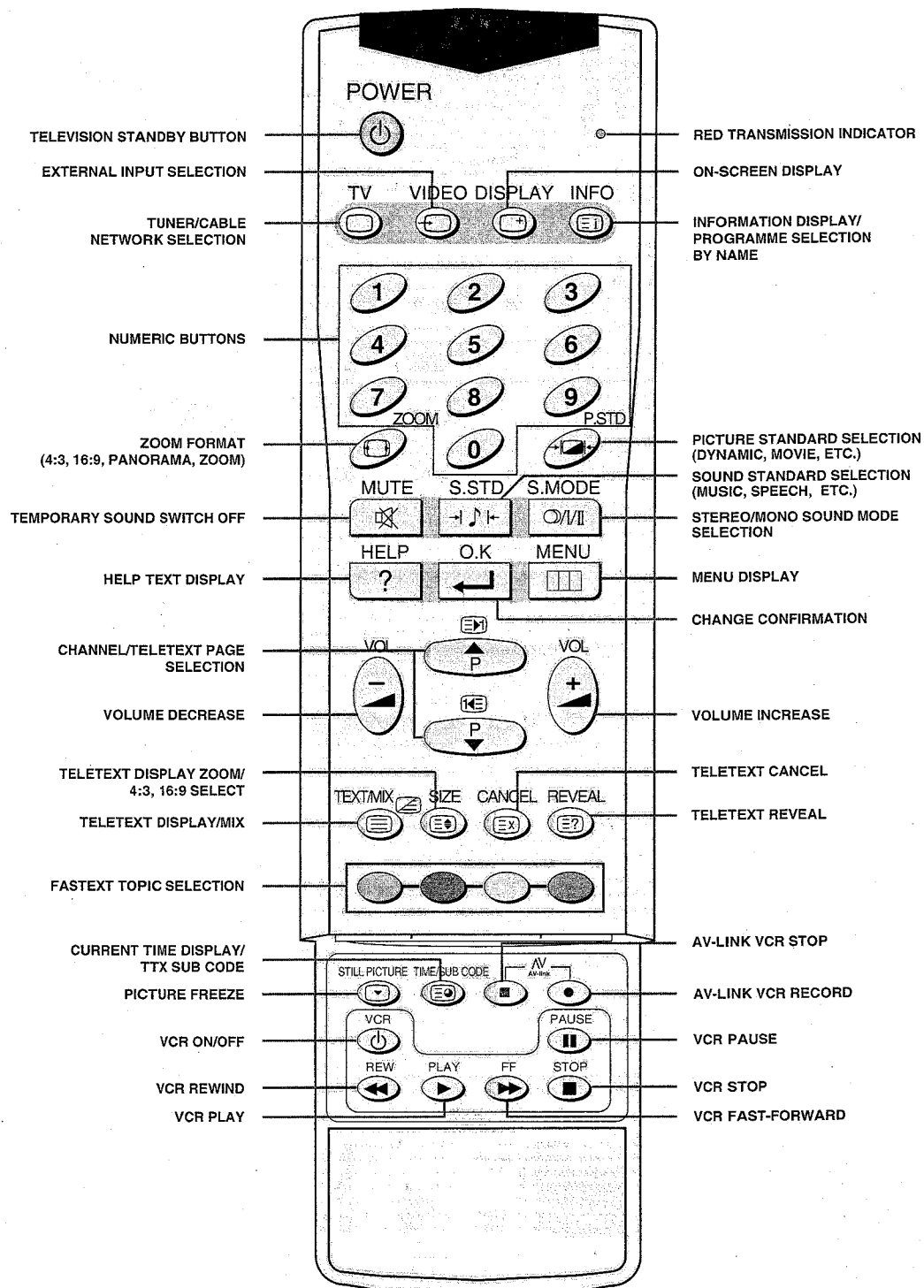


Rear View of Your Television



Infrared Remote Control

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➤ It is possible that the work of the transmitter is dull or not operated normally if the light of the Bulb is on around the TV set.